Bang&Olufsen

Beovision LX4500/5500
Type 39xx

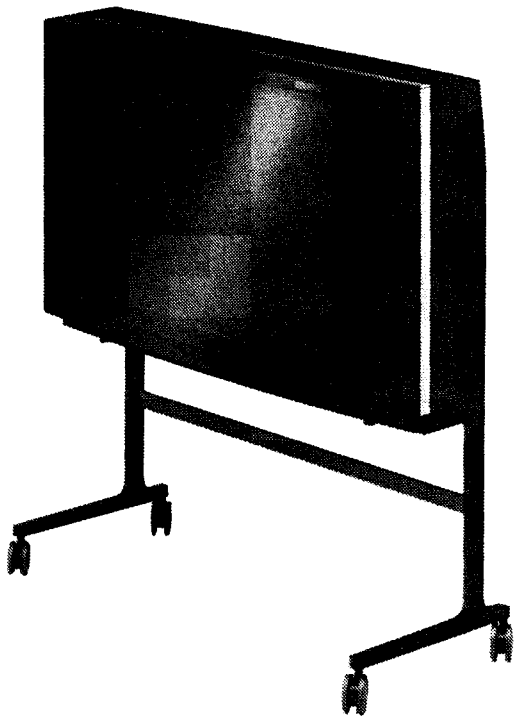
Beovision LX4500/5500 White/Grey Line

Beovision L4500/5500
Type 39xx

Beovision MX3500
Type 316x/317x/318X

Beovision MX5500
Type 326x/327x/328x

Picture-in-picture



12966

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SERVICEANVISNING
SERVICE MANUAL

INDHOLDSFORTEGNELSE

Oversigt over moduler 1-1
Tekniske specifikationer 1-2

Diagrammer m.m. **2**
Stikoversigt 2-1
Transposer 2-2
Diagrammer ..... 2-3 - 2-12
Printtegninger ..... 2-13 - 2-16
Blokdiagrammer ..... 2-17 - 2-21

Elektrisk stykliste **3**

Mekanisk stykliste **4**
TV og video borde 4-9

Justeringsvejledning **5**

Adskillelse **6**
LX 4500/5500 6-1
MX 3500 6-3
MX 5500 6-7

Reparationstips **7**

Isolationstest **8**

Picture-in-picture **9**

CONTENTS

Surveys of modules 1-1
Technical specifications 1-2

Diagrams etc. **2**
Plug survey 2-1
Transposer 2-2
Diagrams ..... 2-3 - 2-12
Printdrawings ..... 2-13 - 2-16
Block diagrams ..... 2-17 - 2-21

List of electrical parts **3**

List of mechanical parts **4**
TV and video stands 4-9

Adjustment instructions **5**

Disassembly **6**
LX 4500/5500 6-1
MX 3500 6-3
MX 5500 6-7

Repair tips **7**

Insulation test **8**

Picture-in-picture **9**

1 Tuner and IF System B/G/L ..... diagr. A page 2-3

1 Tuner and IF System I ..... diagr. A page 2-3

2 PAL/SECAM/NTSC Decoder ..... diagr. B page 2-4

3 Video Output ..... diagr. C page 2-5

4 Switch Mode Power Supply ..... diagr. I page 2-11

5 Video and Audio Switching ..... diagr. D-E page 2-6, 2-7

6 Teletext and µP System ..... diagr. F-G page 2-8, 2-9

7 Headphone ..... diagr. C page 2-5

8 Nicam Decoder ..... diagr. J page 2-12

9 IR Transceiver ..... diagr. C page 2-5

10 Deflection and Still display ..... diagr. H page 2-10

10 Sound output ..... diagr. C page 2-5

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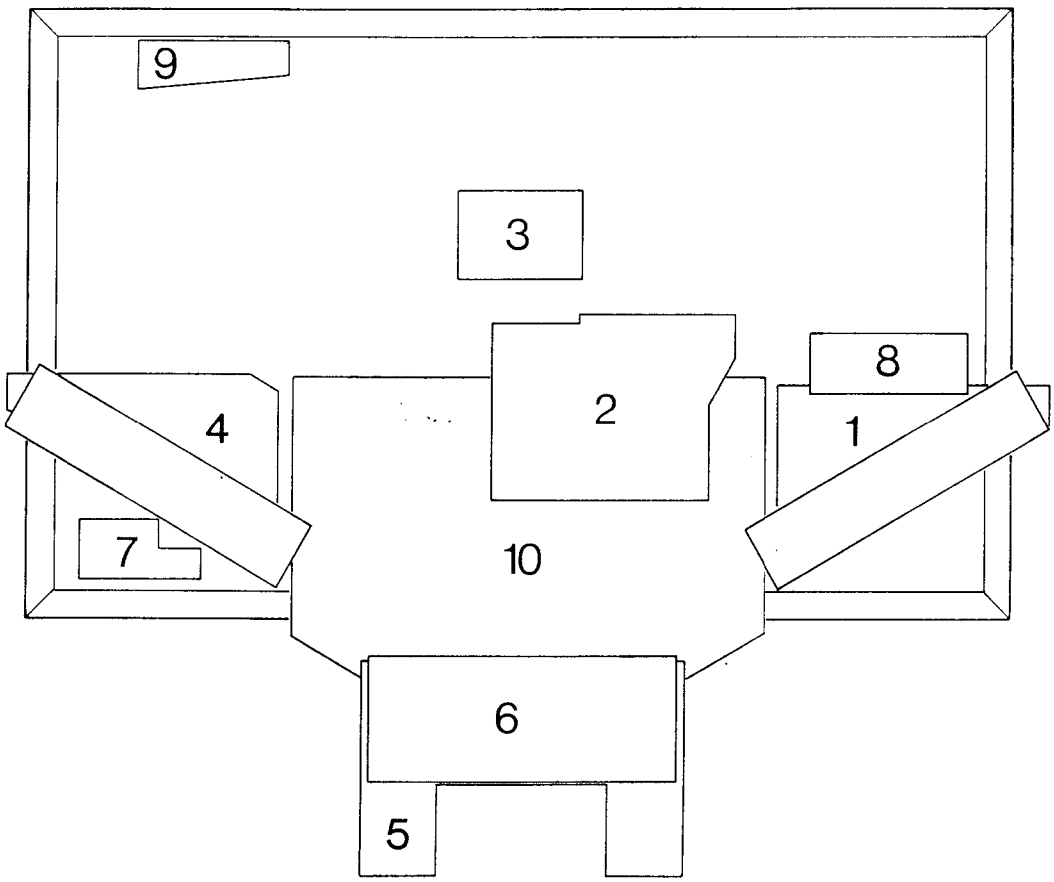
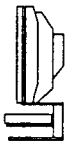
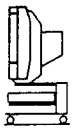
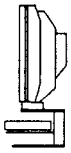
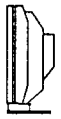


TECHNICAL SPECIFICATIONS	Beovision MX3500 – L/LX4500 – L/LX/MX5500
CTV system	Multistandard B/G/L
	In GB version: only I
Colour system	Pal/Secam, NTSC A/V 4.43 MHz/3.58 MHz
Picture tube (Visual picture)	MX3500 55 cm-21" (51 cm-20")
	L/LX 4500 63 cm-25" (59 cm-23")
	L/LX/MX5500 70 cm-28" (66 cm-26")
Picture tube system	Flat square, Hi-Bri, In-Line 110 degrees
Contrast screen (only LX/MX)	With metallized coating
Design	L/LX Wide format cabinet
	MX High format cabinet
Cabinets	MX White – Black – Red – Grey – Blue
	LX Rosewood – White – Black – Grey – White Line
	L Teak – Rosewood – Grey metallic
Main features	
Operation	Beolink 1000, one-way
	Prepared for two-way
Sound center balance	Between Beolab and Beovision speakers
Specifications	
Sound system	Built-in Nicam EU + A2 stereo dekoder
	Built-in Nicam EU + A2 dual language
TV tuner range	46-855 MHz: VHF, S, Hyper, UHF
No. of TV programmes	50
Satellite	Prepared for Beosat LM-kit
No. of satellite programmes	64
Signal/noise level	>35 dB/1 Vpp and antenna signal >1 mV
Crosstalk between sources	>45 dB/5 MHz
Teletext	FLOF, TOP, 5 alphabet, 6 alphabet (E)
Teletext memory	4 x 50 page nos.
Station identification	Via Teletext/station naming
Speaker system	L/LX 2 x Bass reflex
	MX 2 x Log Line
Speaker units	LX5500 – Woofer 2 x 10 cm-4"
	Tweeter 2 x 5 cm-2"
	LX4500 – Woofer 2 x 7.5 cm-3"
	Tweeter 2 x 5 cm-2"
	L 5500 – Full range 2 x 10 cm-4"
	L 4500 – Full range 2 x 7.5 cm-3"
	MX3500 – Full range 2 x 7.5 cm-3"
	MX5500 – Full range 2 x 7.5 cm-3"
Crossover frequency	LX4500 – LX5500: 2500 Hz
Long-term max. output power	2 x 40 watts/8 ohms
Harmonic distortion	<0.5% at 15 watts
Intermodulation	<1%
Signal/noise ratio	>50 dB weighted 50 mW (NICAM >70 dB)
Frequency range, audio	25 – 20,000 Hz ±1.5 dB
Power bandwidth	25 – 20,000 Hz
Bass control	±8 dB/100 Hz
Treble control	±8 dB/10,000 Hz
Mains voltage	220-240 volts, 50-60 Hz
Power consumption	100 (75-165) watts
Power consumption Stand-by	3 watts
Dimensions WxHxD/weight	LX5500 – 86x52x46 cm/43 kg
	L 5500 – 86x52x46 cm/40 kg
	LX4500 – 77.5x47.5x42.5 cm/36.5 kg
	L4500 – 77.5x47.5x42.5 cm/32.6 kg

	MX3500 - 51x55x41.5 cm/23 kg
	MX5500 - 54.5x66x45 cm/ 42 kg
Connections	
AV Link	2x21-pin Euro - sockets
Super VHS	YC playback 4-pin socket
Audio Aux Link	7-pin socket
Power Link	2x8-pin sockets
External speakers	2x2-pin sockets
Motorized stand operation	4-pin socket
Aerial VHF - UHF	75 ohms coaxial socket
Stereo headphones	Jack socket 6 mm
Accessories	
Beosat LM kit/Positioner	3002/3012
AVX 1 Expander Box	With 3x21-pin AV Link Euro sockets,
	2x7 pin Audio Aux Link sockets
Loop amplifier	3098
Picture in picture	4120 (LX), 4121 (MX)
NTSC system M kit	3050 (Not for GB)
Stereo headphones	Form 1 - Form 2
Transposer/Cap	8003719/3131276

Stands for Beovision and Video

	MX 5500	MX 3500
TV stands or Video stands VX 5000	 ST MX 55 4109 SH VX 50 4113	 ST MX 35 4110 SH VX 50 4113
Motorized TV stand or Motorized video stand	 MS MX 55 4107 SH VX 50 4113	
Motorized TV base	 MB MX 55 4102	MB MX 35 4105
Wall bracket		WBM 35 4114

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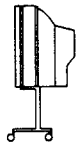
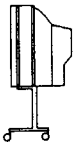
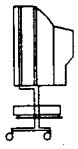
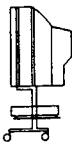
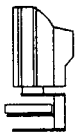
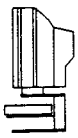
Abbreviations:

ST	Stand for Beovision
SH	Shelf for VX
MS	Motorized stand
MB	Motorized base
WB	Wall bracket

Finish:

ST MX 55, 35	Metallic grey
MS MX 55	Metallic grey
MB MX 55	Aluminium
MB MX 35	Aluminium
SH VX 50	Black
WBM 35	Black

	LX / L 5500	LX / L 4500
TV stands	 ST LX 55 - 45 4108 Traverse 55 4103	 ST LX 55 - 45 4108 Traverse 45 4104
Video stands VX 5000	 ST LX 55 - 45 4108 SH LX 55 4111	 ST LX 55 - 45 4108 SH LX 45 4112
Motorized TV stand or Motorized video stand	 MS LX 55-45 4106 SH VX 50 4113	 MS LX 55-45 4106 SH VX 50 4113
Motorized TV base	MB LX 55-45 4101	MB LX 55-45 4101

Abbreviations:

ST	Stand for Beovision
SH	Shelf for VX
MS	Motorized stand
MB	Motorized base

Finish:

ST LX 55-45	Black-White
Traverse	White-Metallic grey
MS LX 55-45	Metallic grey
MB LX 55-45	Black
SH LX 55-45	Black
SH VX 50	Black

Type Survey

LX5500	LX4500	L5500	L4500	MX5500	MX3500	System	Remarks	Market
3900	3920	3910	3930	3260	3160	B/G/L		DK-N-S-SF-B-A-D-F-CH-NL-GR
3901	3921	3911	3931	3261	3161	B/G/L	NICAM	DK-N-S-SF-B-A-D-F-CH-NL-GR
3902	3922	3912	3932	3262	3162	I		GB
3908	3923	3913	3933	3263	3163	I	NICAM	GB
3904	3924			3264	3164	B/G/L		I
3905	3925			3265	3165	B/G/L		AUS
3906	3926			3266	3166	B/G/L		E
3907	3927			3267	3167	B/G/L	NICAM	E
3909	3929			3269	3169	B/G/L	PIP	DK-N-S-SF-B-A-D-F-CH-NL-GR
3940	3970	3958	3988	3270	3170	B/G/L	SAT	DK-N-S-SF-B-A-D-F-CH-NL-GR
3943	3973	3961	3991	3273	3173	B/G/L	SAT + NIC	DK-N-S-SF-B-A-D-F-CH-NL-GR
3946	3976	3964	3994	3276	3176	I	SAT	GB
3949	3979	3967	3997	3279	3179	I	SAT + NICAM	GB
3952	3982			3282	3182	B/G/L	SAT	I
3955	3985			3285	3185	B/G/L	SAT	E
3956	3986			3286	3186	B/G/L	SAT + NICAM	E

Subject to change without notice

DIAGRAMFORKLARING

På diagrammerne er der angivet typenumre på transistorer og IC'er. Hvis positionsnummeret er efterfulgt af en stjerne, skal reservedelsnummeret altid benyttes, da denne komponent er specielt udvalgt, f.eks. TR102*.

Komponenttryk og koordinatsystem

De største printplader er forsynet med komponenttryk og et koordinatsystem på både print- og komponentside.
På diagrammerne er enhver komponent forsynet med et koordinatnummer. Dette fortæller i hvilket koordinat på printpladen, komponenten er placeret. Koordinatnumrene er angivet med mindre skrifttype end positionsnumrene.

Styrekredsløb

I visse styrekredsløb er den aktive tilstand angivet med en funktions- eller bogstavsangivelse. Denne kan eksempelvis være $\overline{\text{ST.BY.}}$ = »low« i stand-by-stilling eller ST.BY. = »high« i stand-by-stilling.

Ledningsforbindelser

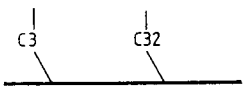
Ledningsforbindelserne på diagrammerne er samlet i »bundter«. De enkelte ledninger er forsynet med en af følgende koder:

INTERN FORBINDELSE PÅ EN DIAGRAMSIDE

Interne forbindelser på en diagramside angives med et tal. Knækket på ledningen viser, i hvilken retning, den anden ende af ledningen findes.

FORBINDELSE TIL EN ANDEN DIAGRAMSIDE

DIAGRAM A



Forbindelsen til en anden diagramside angives med et tal samt et bogstav for det diagram, forbindelsen går til.

Forsyningsspændinger

Alle forsyningsspændinger i diagrammerne er angivet med en pil og en spændingsangivelse.

Eksempel:
Ved siden af spændingsangivelsen står der f.eks. 7 CON. Dette betyder, at den pågældende forsyningsspænding går til 7 steder på den pågældende diagramside (7 CON. = 7 connections).

EXPLANATION OF DIAGRAM

Type numbers of transistors and ICs are indicated on the diagrams.
If the position number is followed by an asterisk the spare part number must always be used because the component in question has been specially selected, e.g. TR102*.

Component print and coordinate system

The largest PCBs have component prints and a coordinate system on both the print and the component side.
On the diagrams every component has a coordinate number. This indicates in which coordinate on the PCB the component is situated. The coordinate numbers are written in smaller print types than the position numbers.

Control Circuit

In certain control circuits the active mode is indicated by a function term or by an abbreviation. This may be e.g. $\overline{\text{ST.BY.}}$ = low in the stand-by mode or ST.BY. = high in the stand-by mode.

Wiring Connections

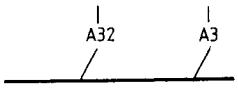
The wiring connections on the diagrams are assembled in 'bundles'. The individual wires are provided with one of the following codes:

INTERNAL CONNECTION ON ONE DIAGRAM PAGE

Internal connections on a diagram page are indicated by a number. The bend of the wire indicates in which direction the other end of the wire is found.

CONNECTION TO ANOTHER DIAGRAM PAGE

DIAGRAM C



A connection to another diagram page is indicated by a number as well as by a letter of the diagram to which the connection leads.

Supply Voltages

All supply voltages in the diagrams are indicated by an arrow and a voltage indication.

Example:
"7 CON.". This means that the supply voltage in question goes to 7 different places on the diagram page in question (7 CON. = 7 connections).

Stelsymboler

Der anvendes tre forskellige stelsymboler i diagrammerne som vist:

= Stel der ikke er galvanisk adskilt fra lysnettet (anvendes på diagram F, PCB4).

= Stel

= Signalstel

Ground symbols

Three different ground symbols are used in the diagrams:

= Ground that is not galvanically separated from the mains. (Used in diagram F, PCB4).

= Ground

= Signal ground

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Signalveje og markering på IC'erne

Signalvejene er vist på diagrammerne ved hjælp af kraftigere optrukne streger og pile. Der anvendes tre forskellige typer pile som vist:

= Video, luminans og chrominans signalerne

= Lydsignal

= Øvrige signaler

Pilene der er vist på benene af IC'erne, fortæller om det pågældende ben er en ind- eller udgang.

Signal paths and IC markings

The signal paths are shown in the diagrams by means of semibold lines and arrow heads. As shown, three different types of arrow head are used:

= Video, luminance and chrominance signals

= Sound signal

= Other signals

The arrow heads shown at the IC pins tell whether the pin indicated is an input or an output.

MÅLEBETINGELSER

Alle DC spændinger er målt i forhold til stel og med voltmeter med en indre modstand på mindst 2 Mohm.

DC spændinger og oscilloscopbilleder er målt i TV mode ved et VHF antennesignal på ca. 1,5 mV. Lys step 32, kontrast step 44 og farvemætning step 32.

DC-spændingerne er opgivet i volt (V), f.eks. 0,7 V.

Alle oscillogrammer og AC-spændinger er målt i forhold til stel med et oscilloskop eller et voltmeter med en indgangsmodstand på 1 Mohm.

AC-spændingerne er opgivet i millivolt (mV), f.eks. 660 mV.

MEASURING CONDITIONS

Measure all DC voltages in relation to ground and with voltmeter with inner resistance of at least 2 Mohm.

Measure DC voltages and oscilloscope pictures in TV mode at an VHF aerial signal of approx. 1.5mV. Brilliance step 32, contrast step 44 and colour saturation step 32.

The DC voltages are stated in volts (V), e.g. 0.7 V.

All oscillograms and AC voltages have been measured in relation to ground with an oscilloscope or a voltmeter with an input resistance of 1 Mohm.

AC voltages are stated in millivolts (mV), e.g. 660 mV.

SYMBOL FOR SIKKERHEDSMODSTANDE

Ved udskiftning af komponenter med dette symbol skal der anvendes samme type, samt samme værdier for ohm og watt. Den nye komponent skal monteres på samme måde som den udskiftede.

SYMBOL FOR SAFETY RESISTORS

When replacing components with this symbol the same type has to be used, also the same values for ohm and watt. The new component is to be mounted in the same way as the replaced one.

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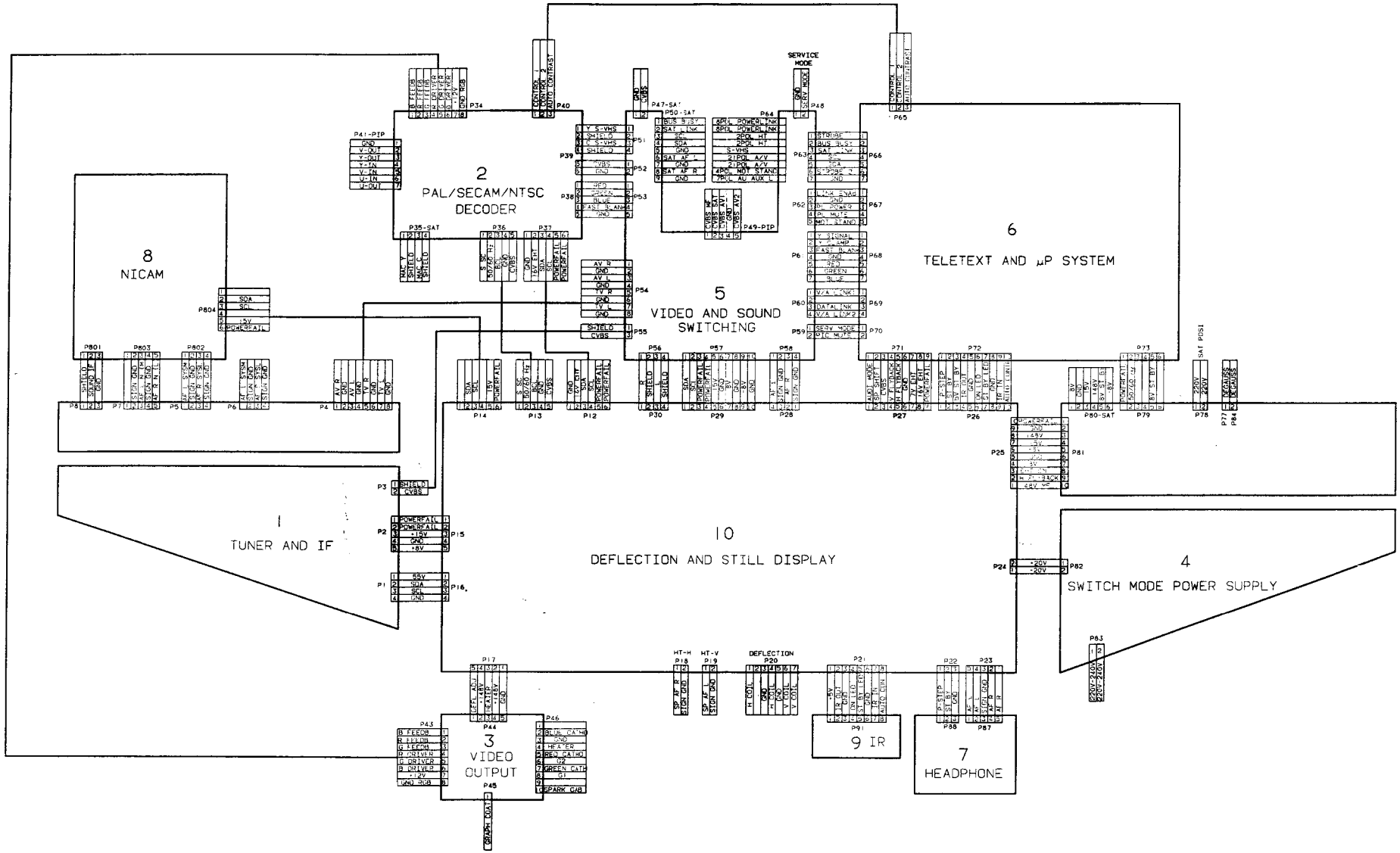
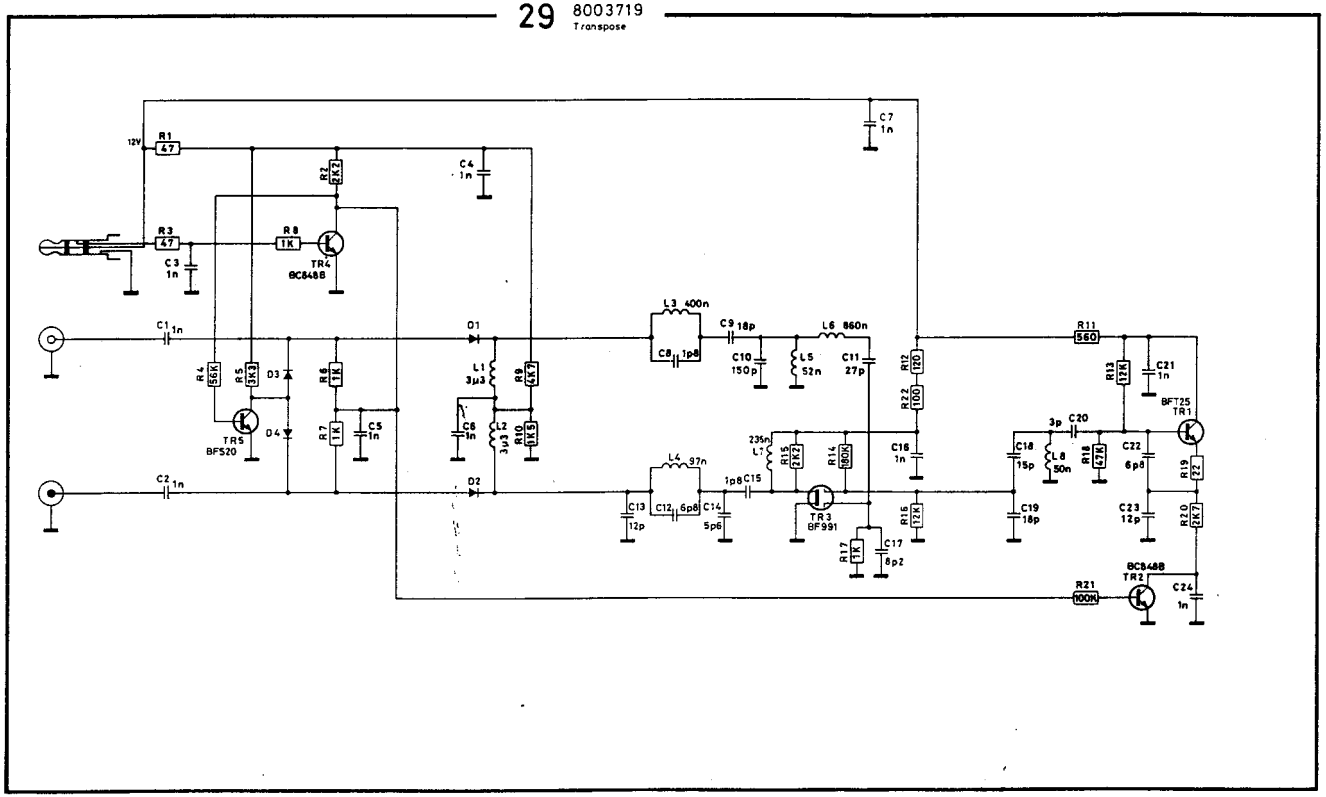



29 8003719
Transpose
12V
R1 47
R2 2K2
R3 47
R8 1K
TR4 BC848B
C3 1n
C4 1n
C7 1n
C1 1n
C2 1n
D1
D2
D3
D4
R4 56K
R5 3K3
R6 1K
R7 1K
C5 1n
TR5 BF520
L1 3µ3
L2 3µ3
C6 1n
R9 4K7
R10 4K5
L3 400n
C9 18p
C8 1p8
C10 150p
L5 52n
L6 860n
C11 27p
R12 100
R22 100
C16 1n
R11 560
R13 12K
C21 1n
BF125 TR1
3p C20
C18 15p
L8 50n
R18 47K
C22 6p8
R19 2Ω2
C23 12p
R20 4K7
C19 18p
R21 100K
TR2 BC848B
C24 1n
L4 97n
C13 12p
C12 6p8
C14 5p6
1p8 C15
235n L7
R15 2K2
R14 680K
TR3 BF991
C17 8p2
R17 1K
R16 12K

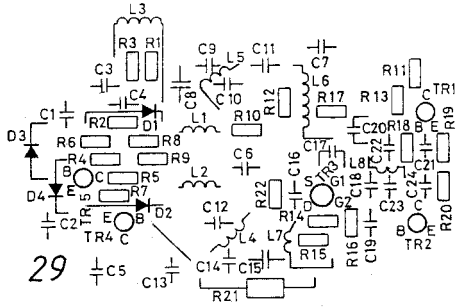
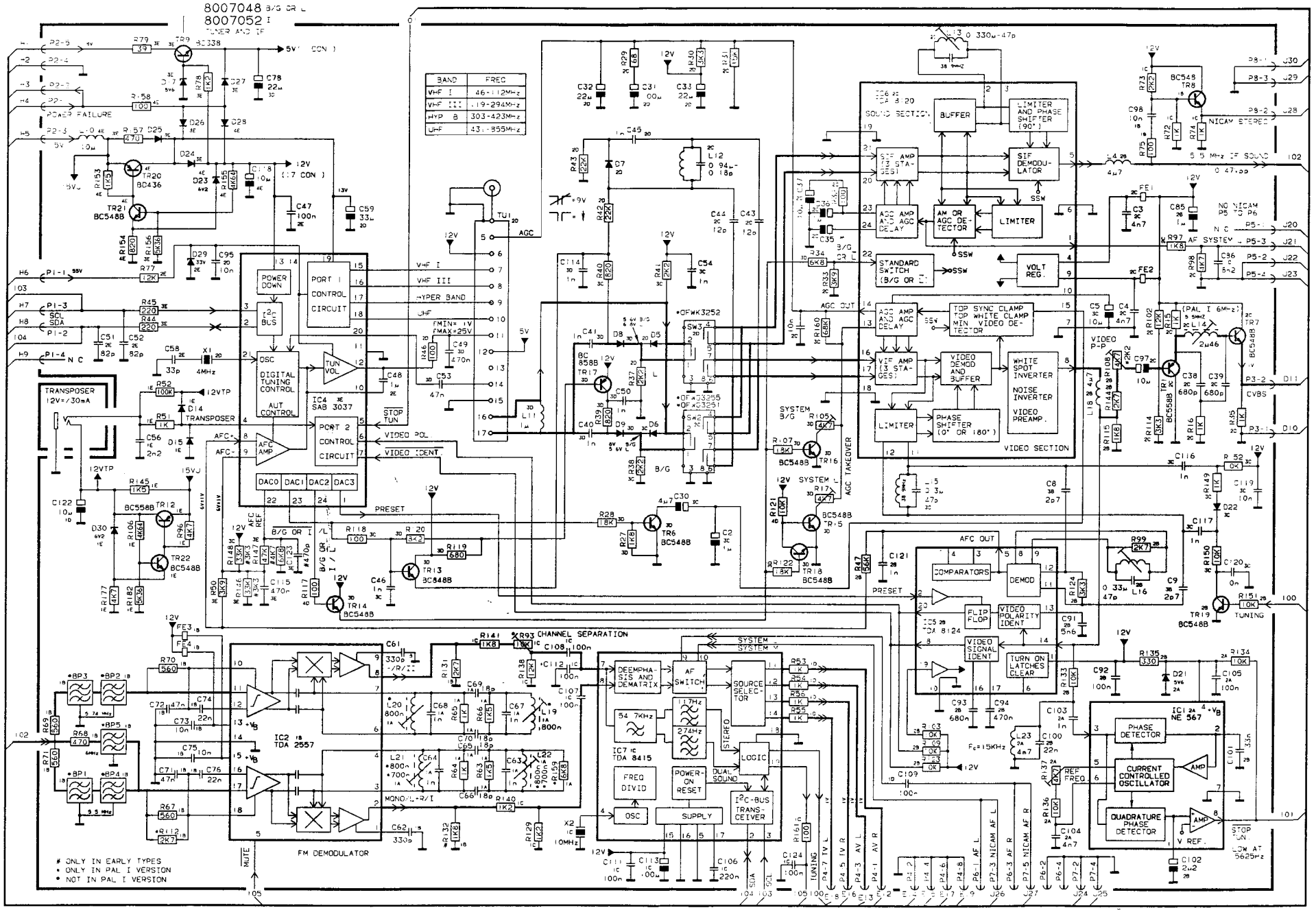

29
L3
R3 R1
C3
C4
C9
L5
C11
C7
L6
R17
R11
R13
C1
R2
D1
C8
C10
R12
R10
L1
C20
R18
D3
R6
R8
R4
R9
L2
C6
C16
C17
C21
C22
C18
C24
R4
R5
R7
R22
C12
R14
L4
L7
D4
C2
TR5
E
B
D2
TR4 C
R15
R16
C19
C5
C13
C14
C15
R21
TR1
R19
TR2
R20

DIAGRAM A TUNER AND IF SYSTEM



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Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

DIAGRAM B PAL/SECAM/NTSC DECODER

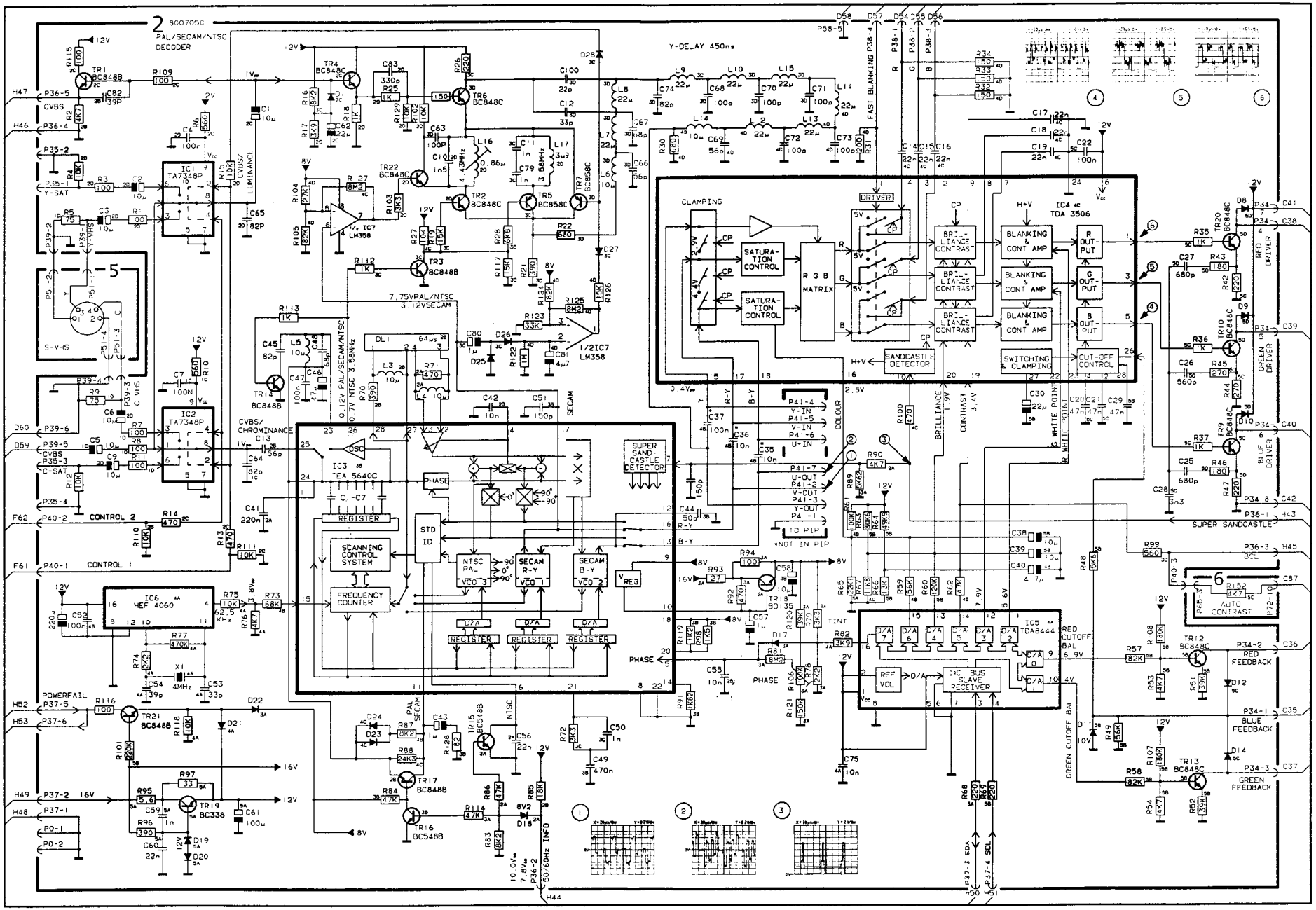

DIAGRAM C VIDEO OUTPUT, SOUND OUTPUT, IR TRANSCEIVER, HEADPHONE, CROSSOVER NETWORK

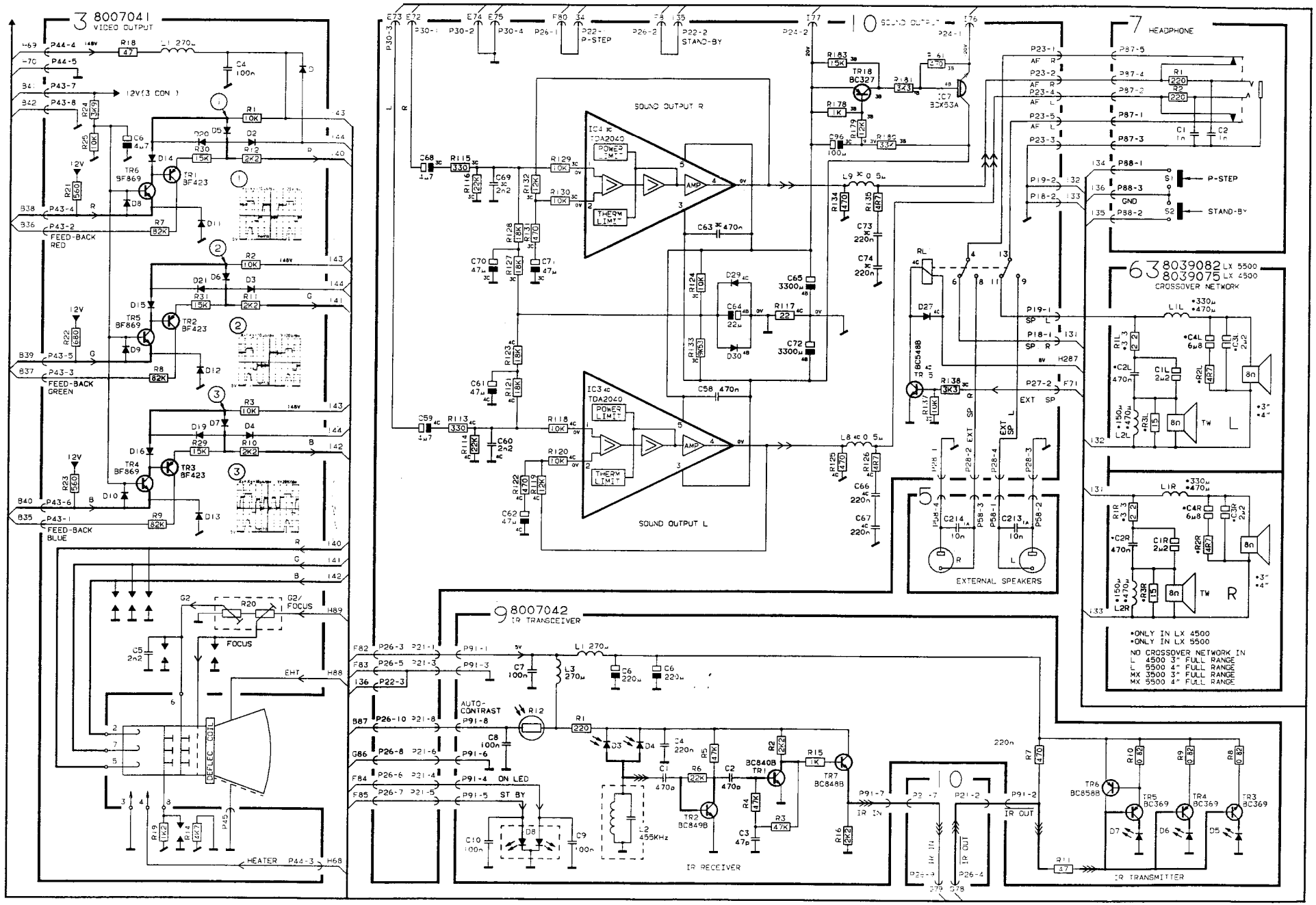

DIAGRAM D VIDEO SWITCHING

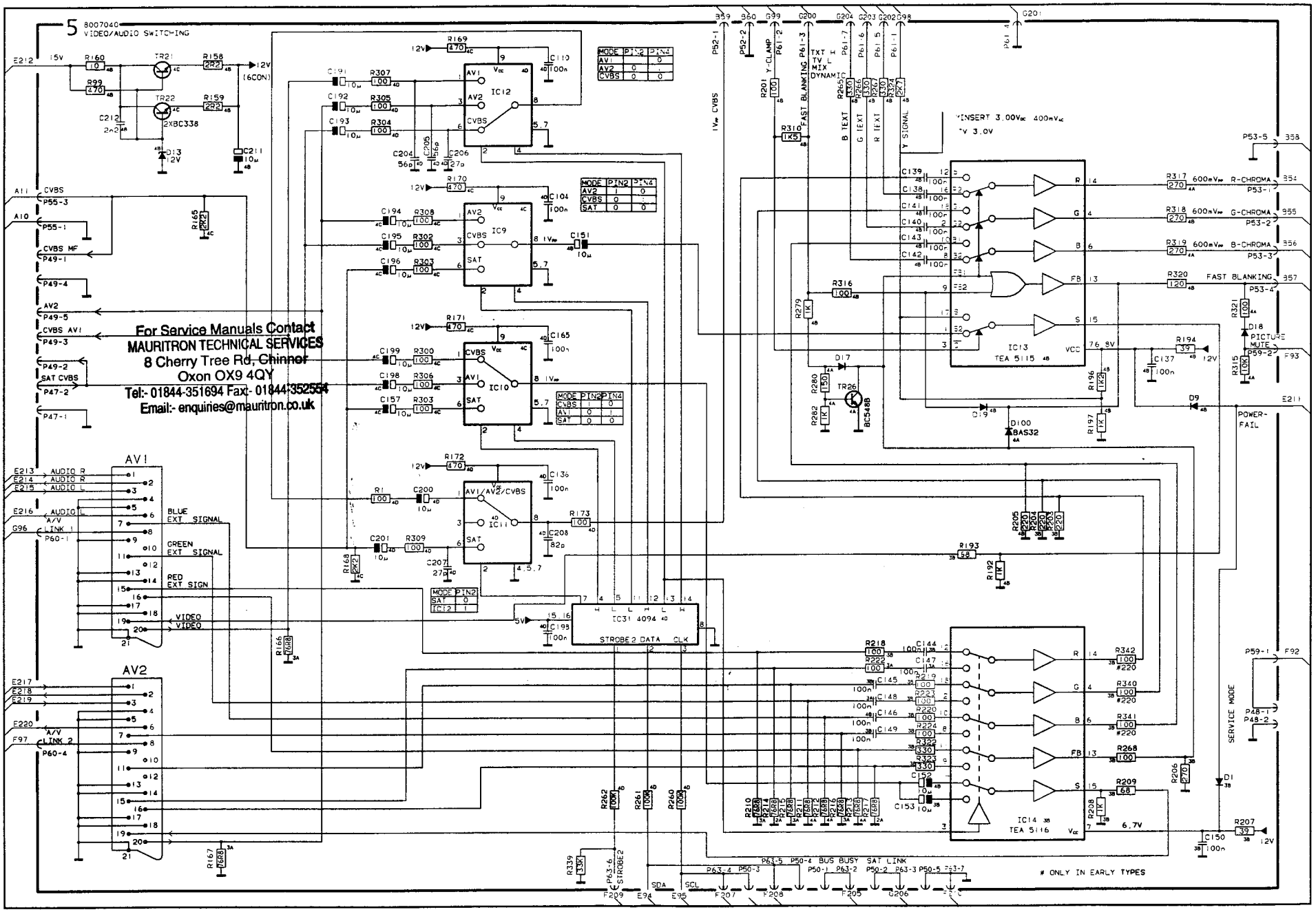

DIAGRAM E SOUND SWITCHING

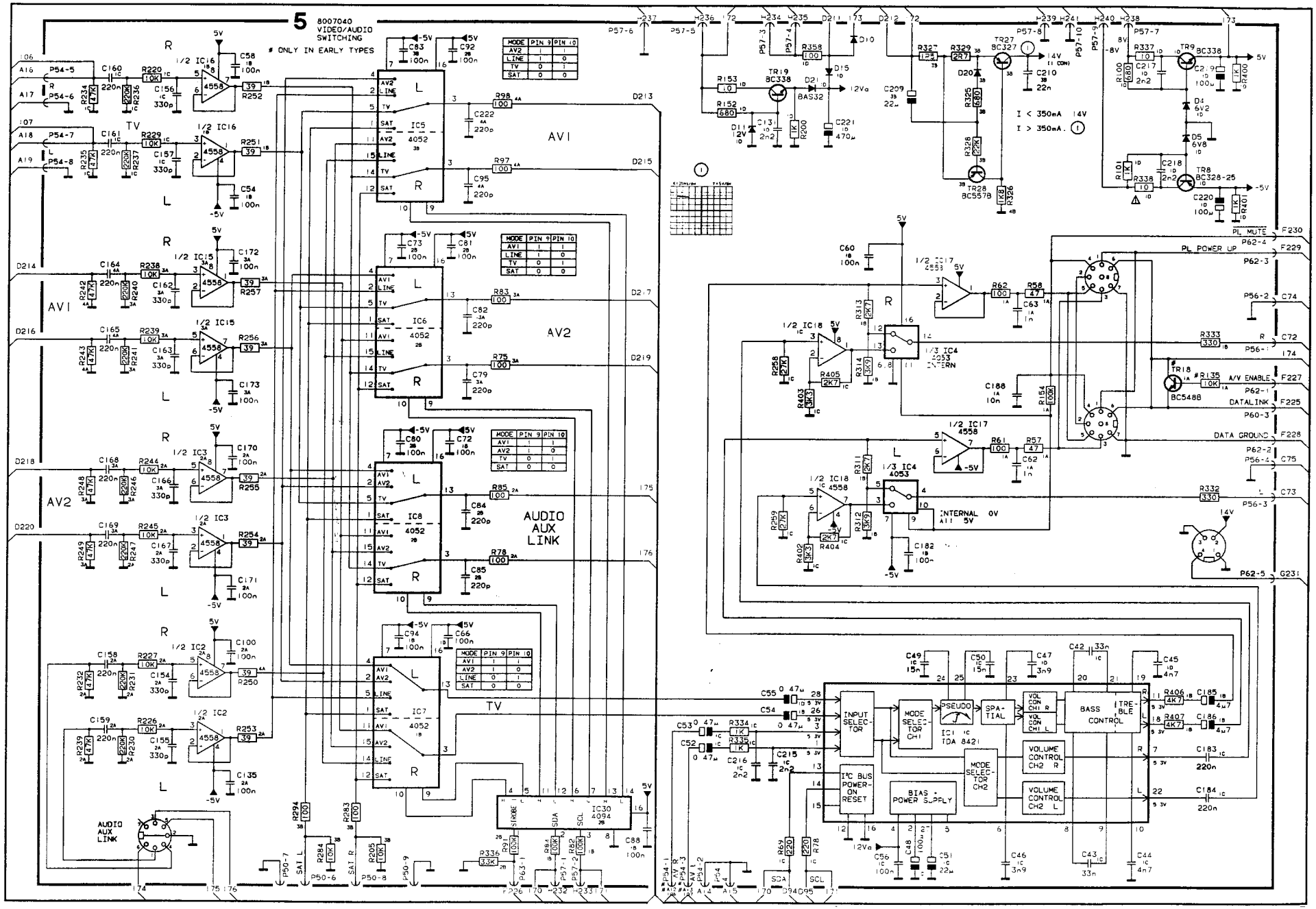

DIAGRAM F MICROCOMPUTER

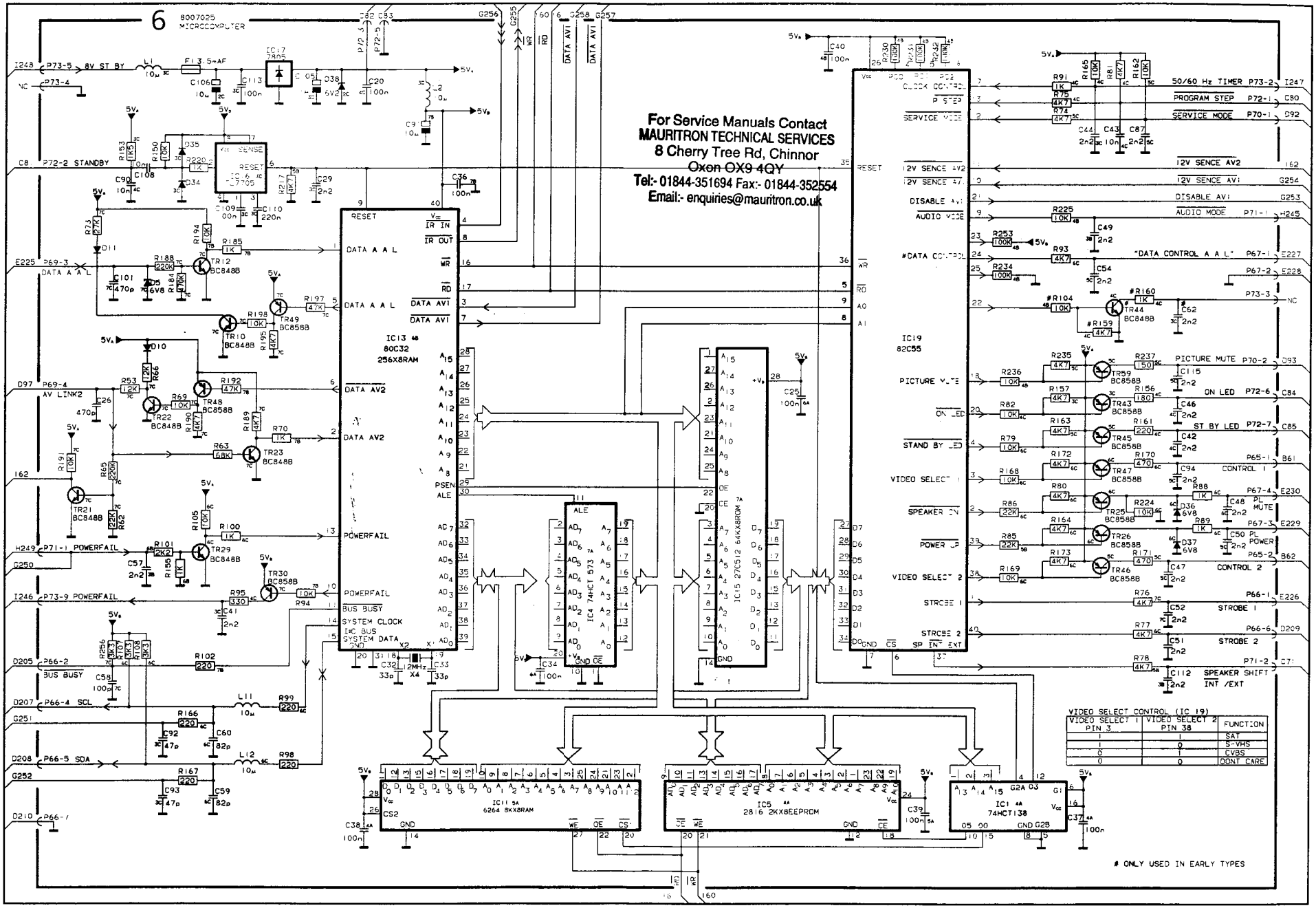

DIAGRAM G TEXTDECODER, IR RECEIVER, IR TRANSMITTER

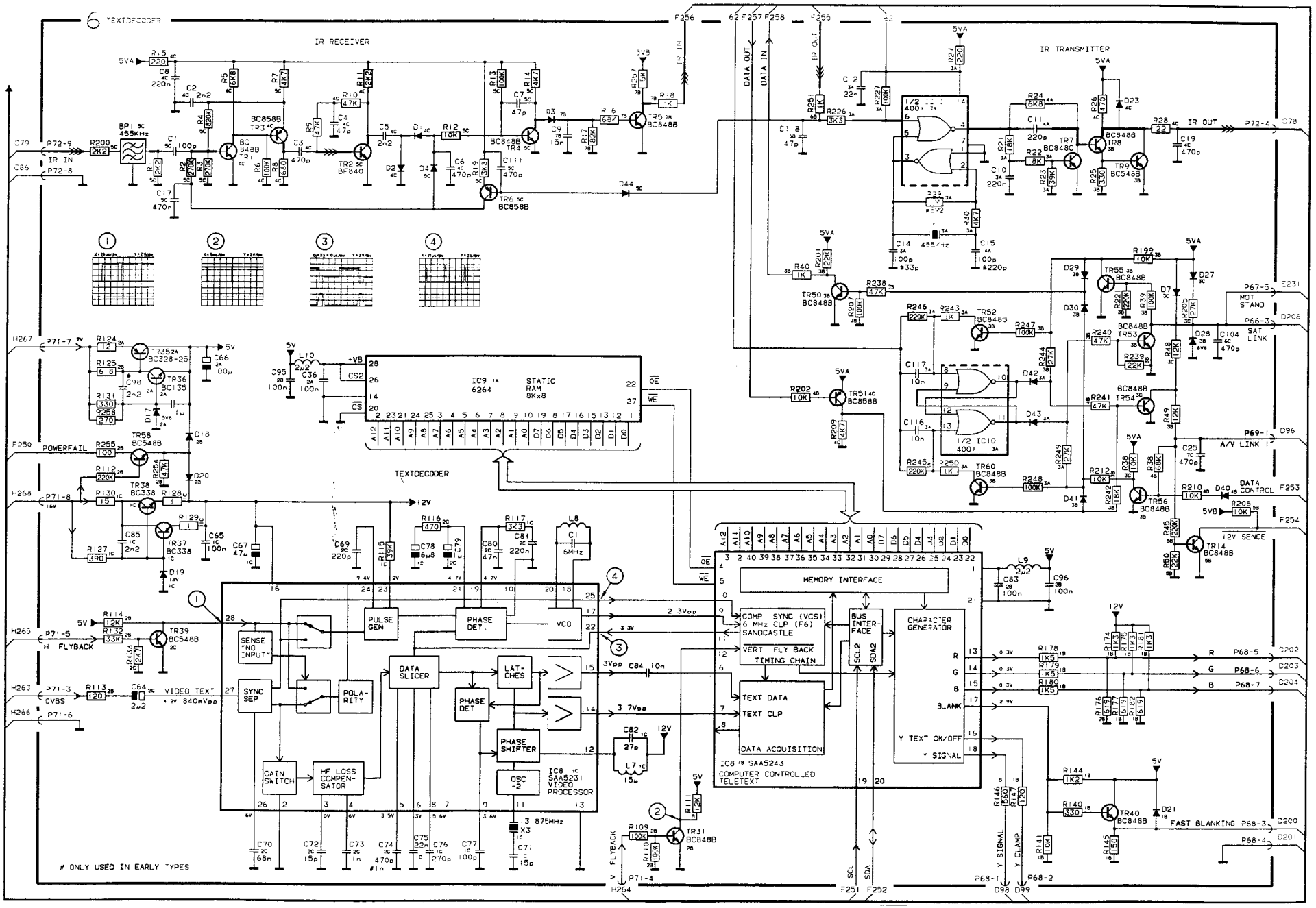

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DIAGRAM H DEFLECTION AND STILL DISPLAY

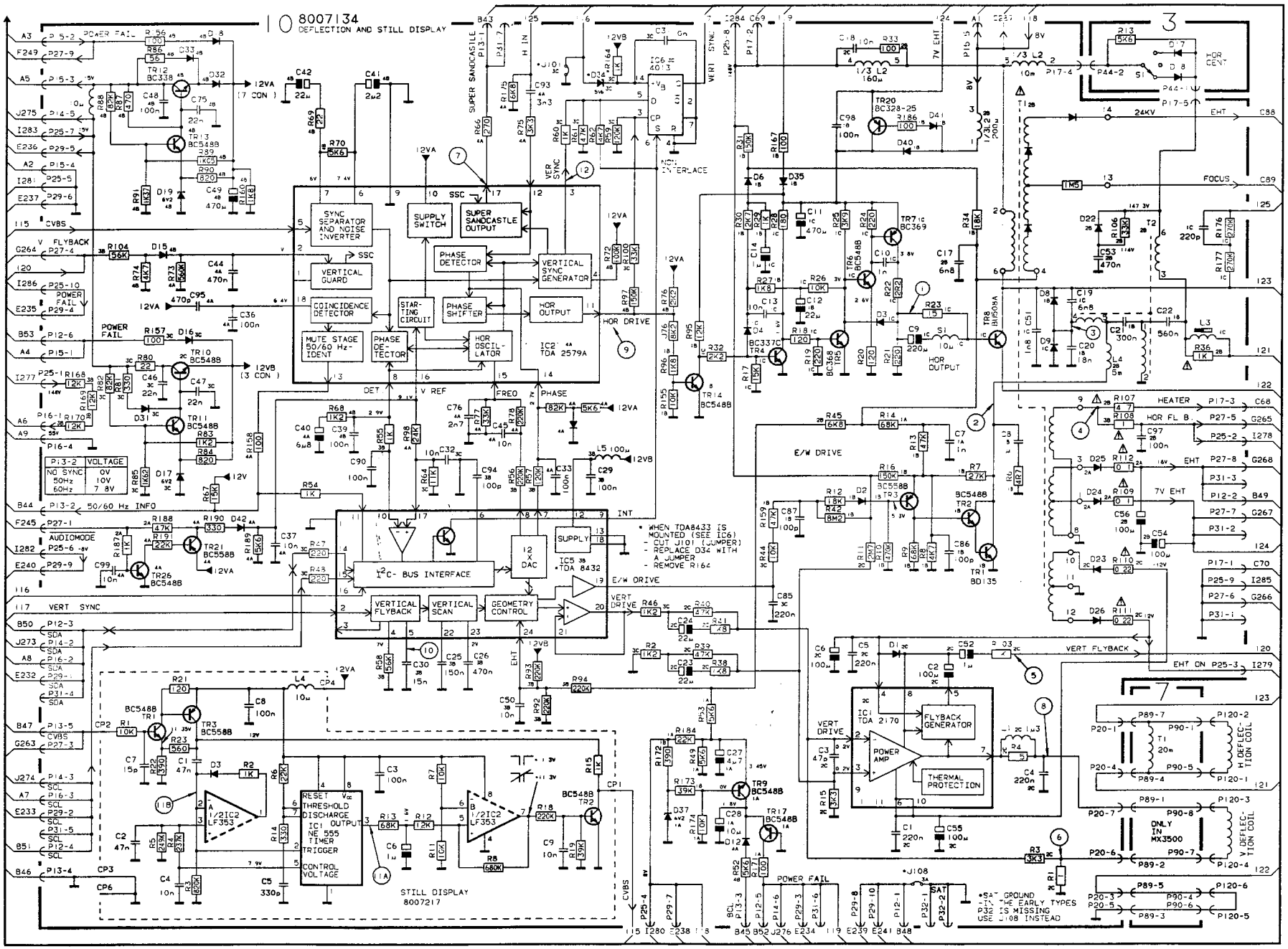


DIAGRAM H DEFLECTION AND STILL DISPLAY, PCB E VERSION

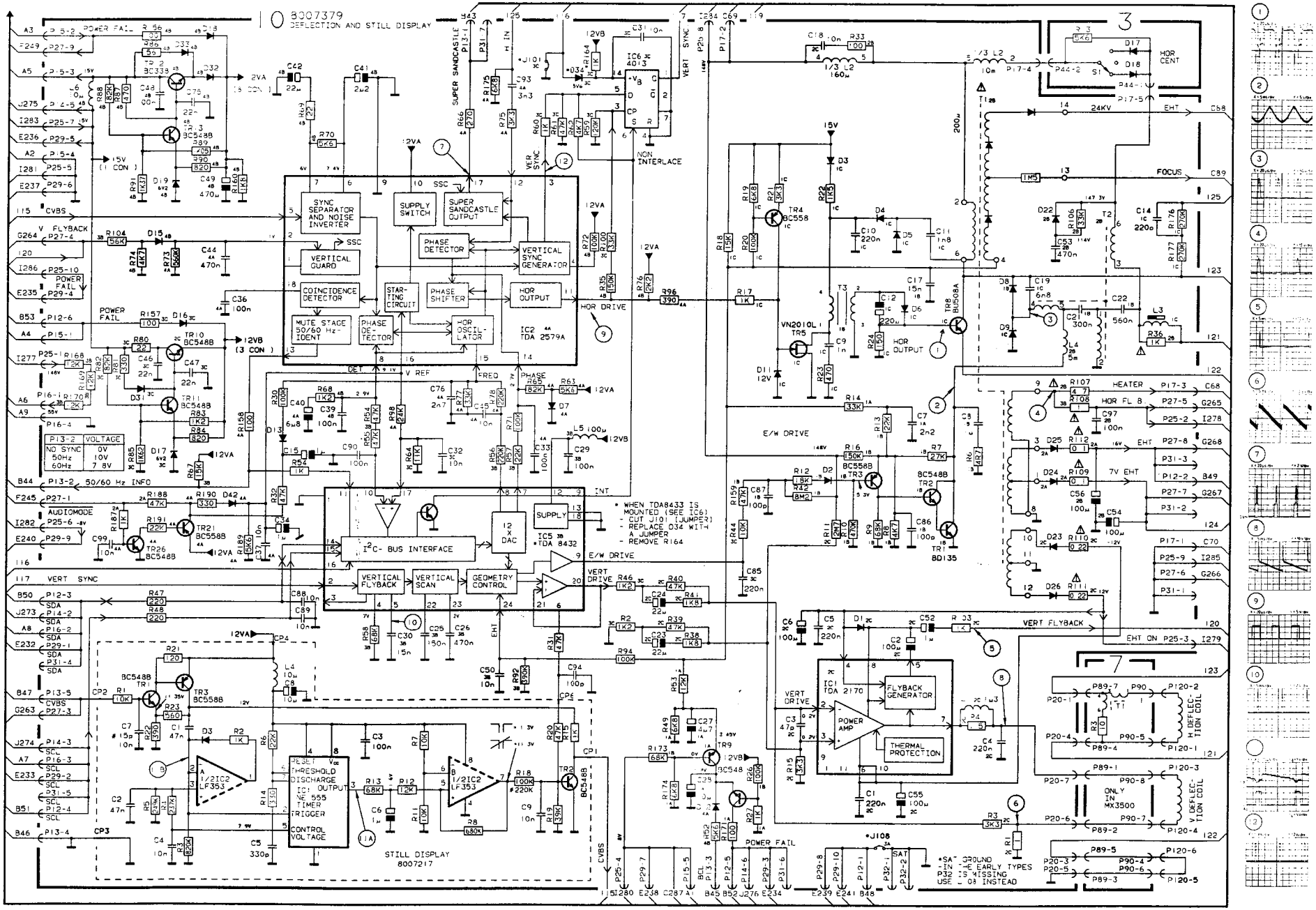
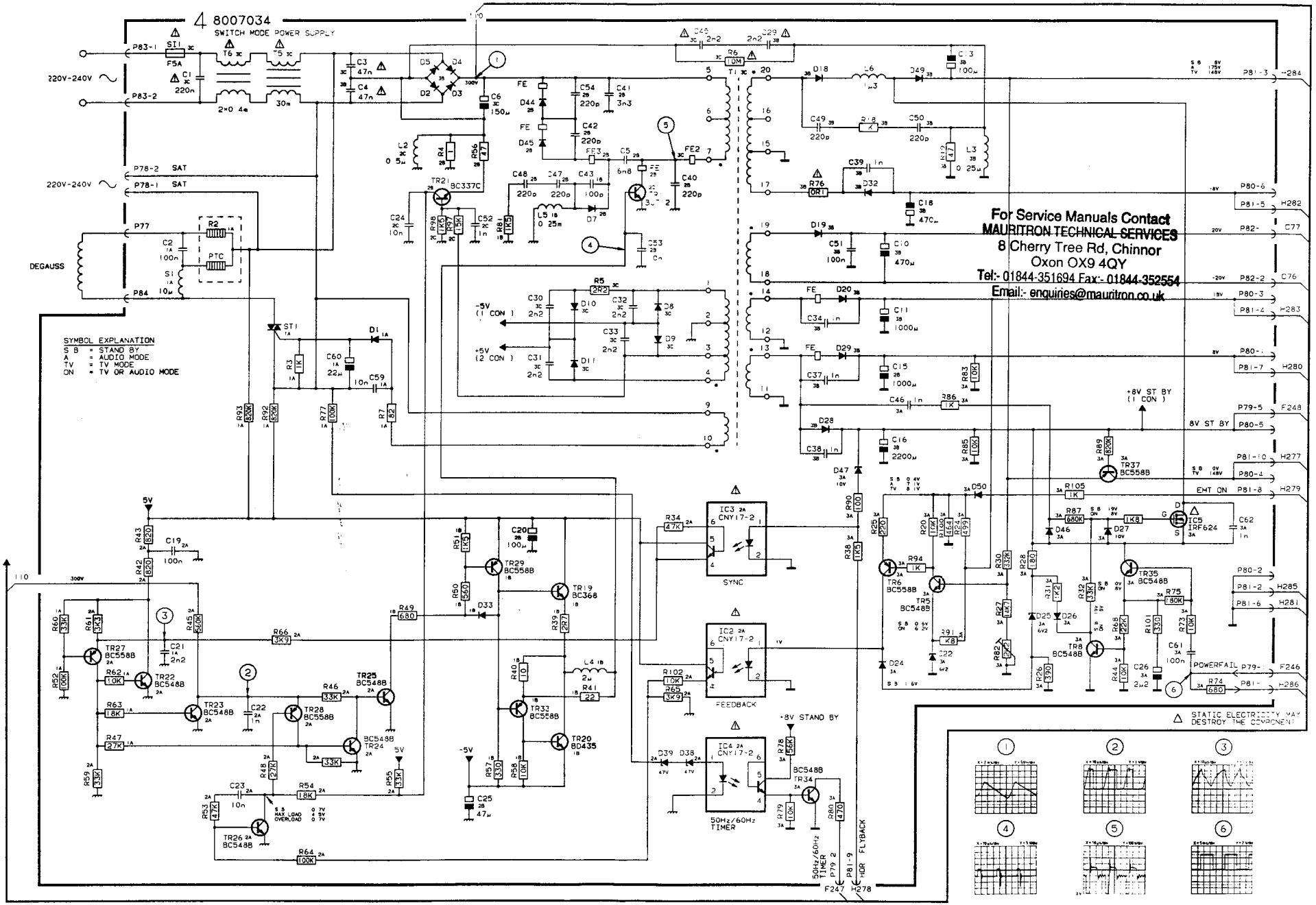


DIAGRAM I SWITCH MODE POWER SUPPLY



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2-11A 2-11A

DIAGRAM I SWITCH MODE POWER SUPPLY, PCB G VERSION

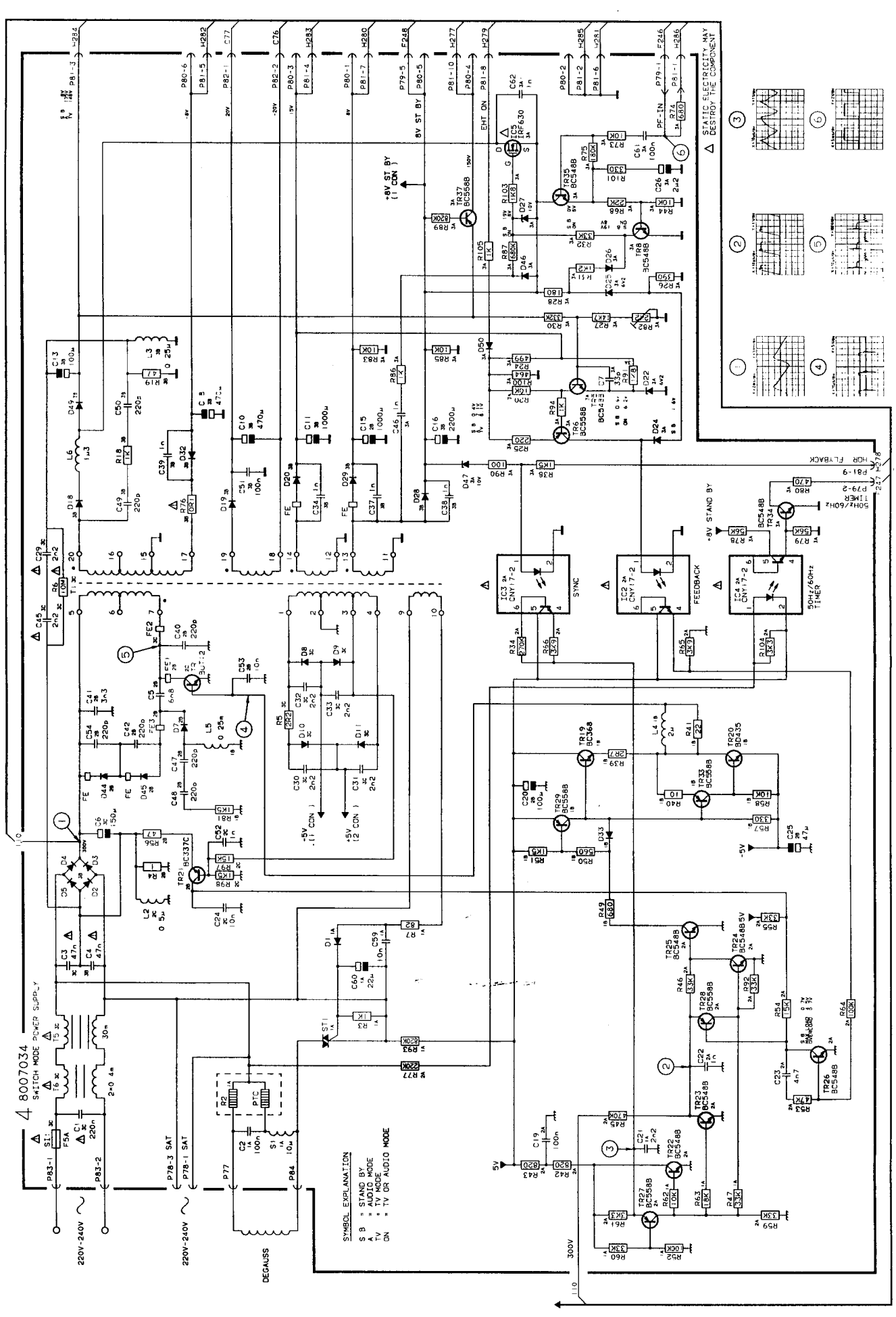
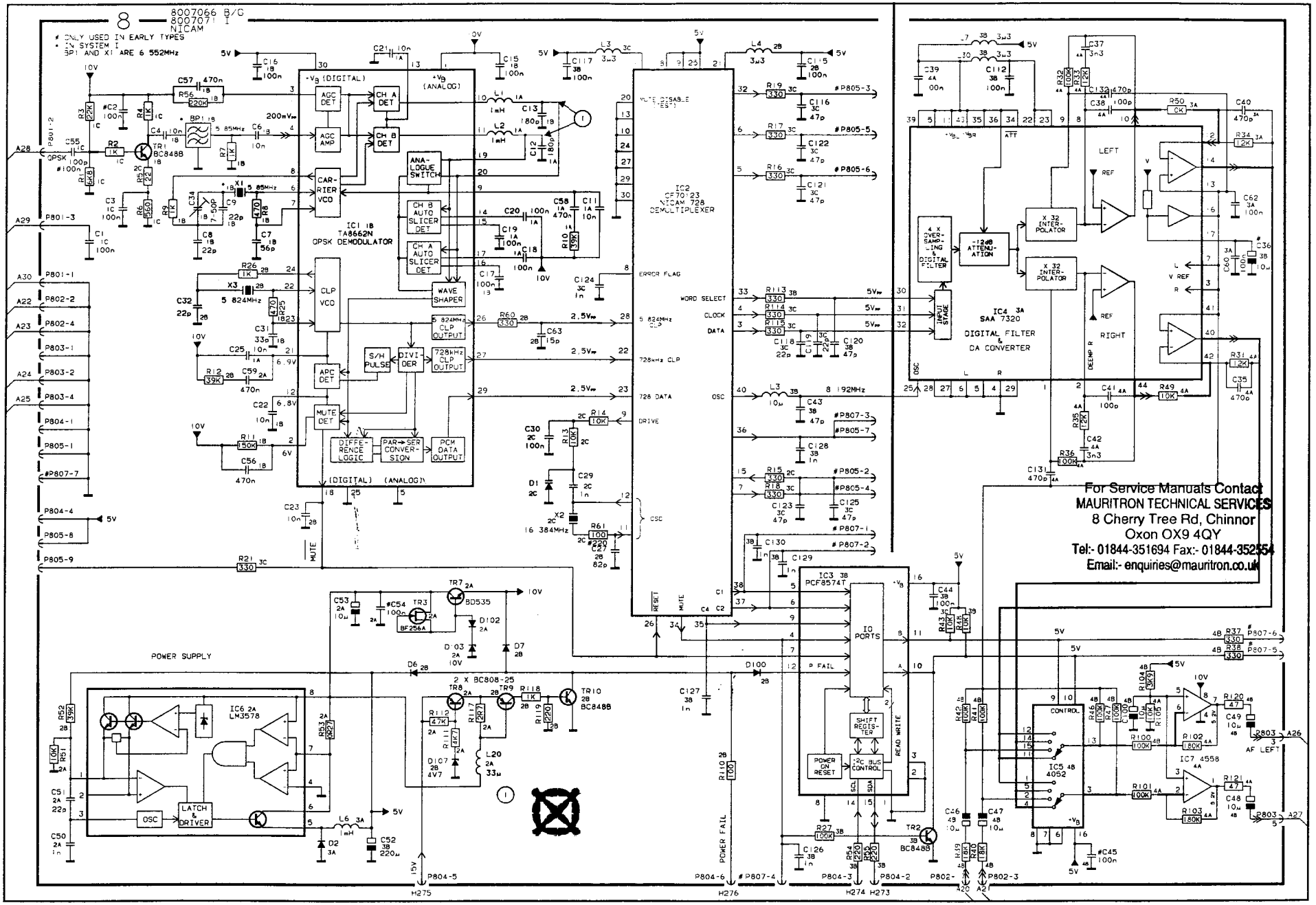
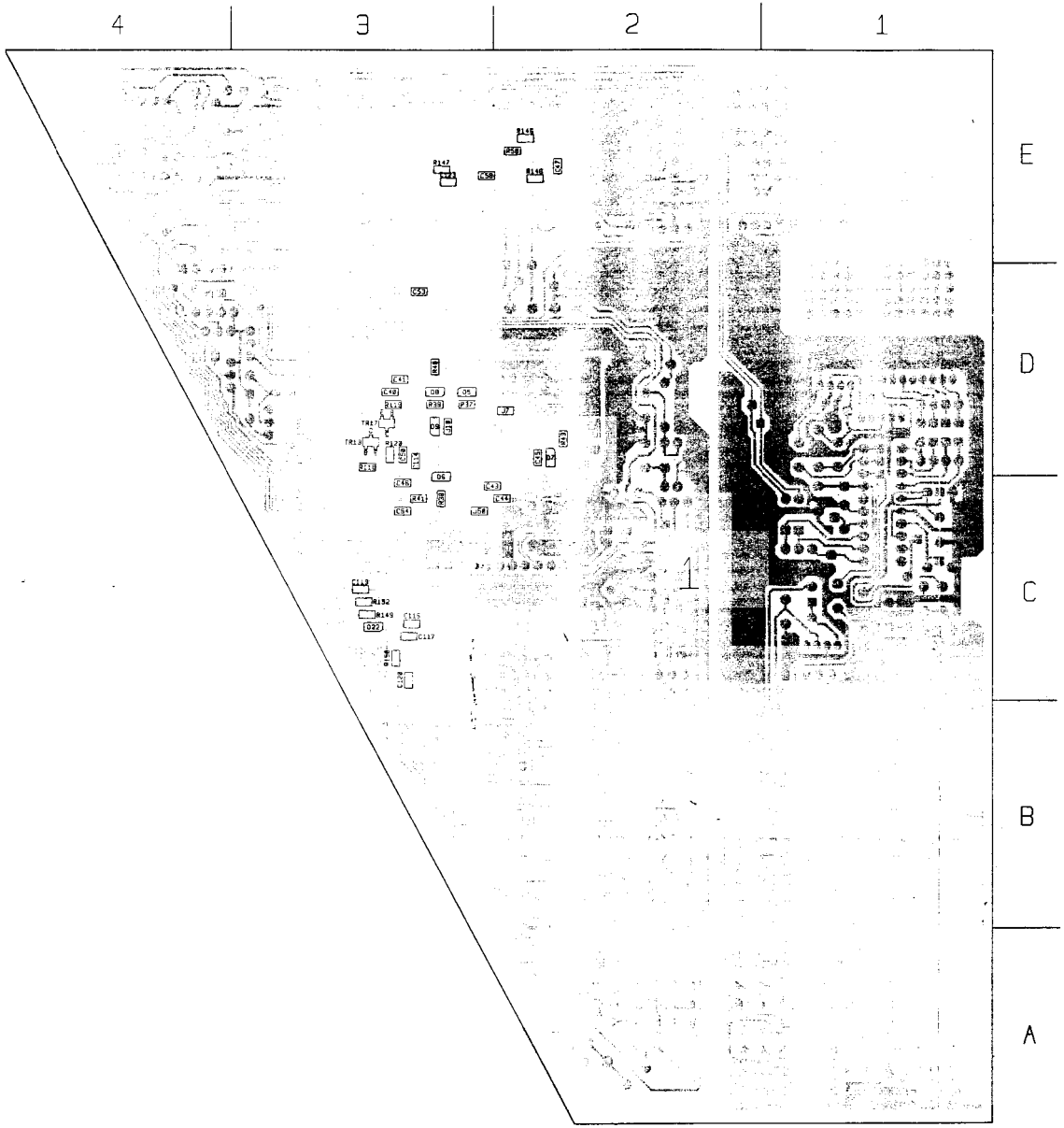


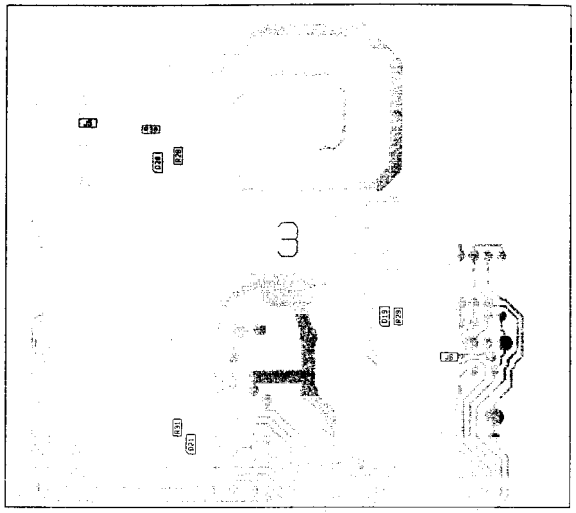
DIAGRAM J NICAM



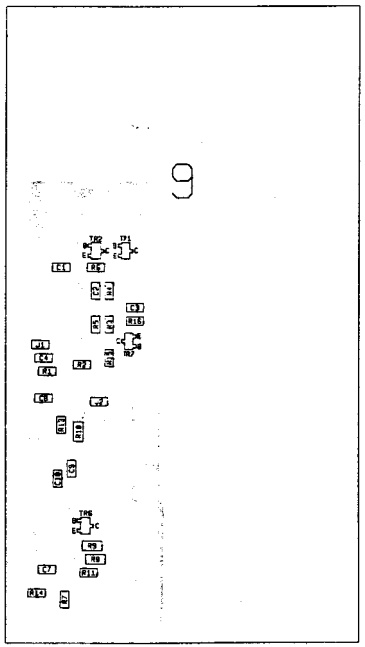
PCB1 TUNER AND IF SYSTEM



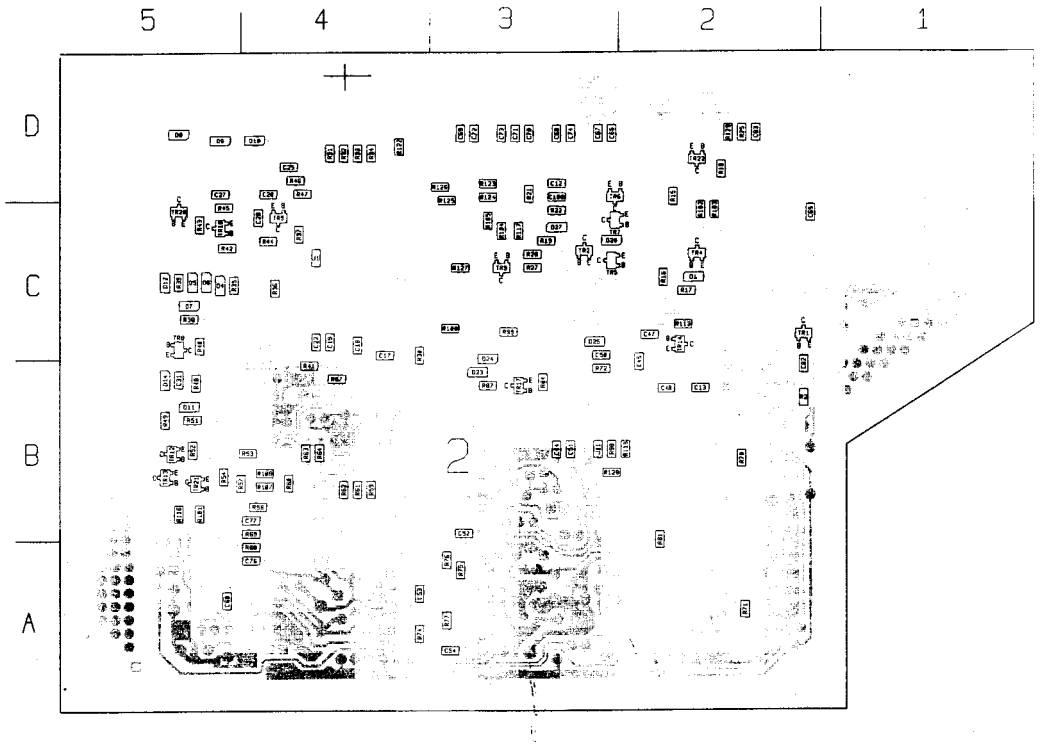
PCB3 VIDEO OUTPUT



PCB9 IR TRANSCEIVER



PCB2 PAL/SECAM/NTSC DECODER



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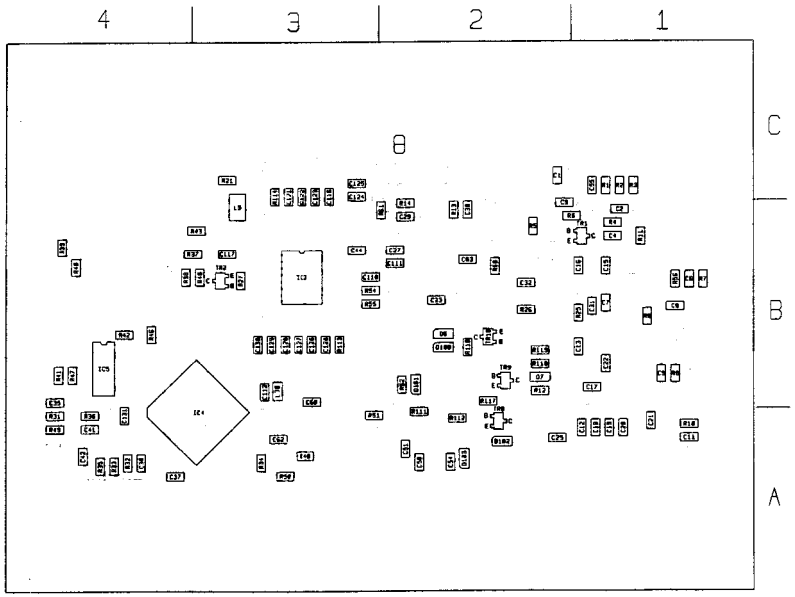
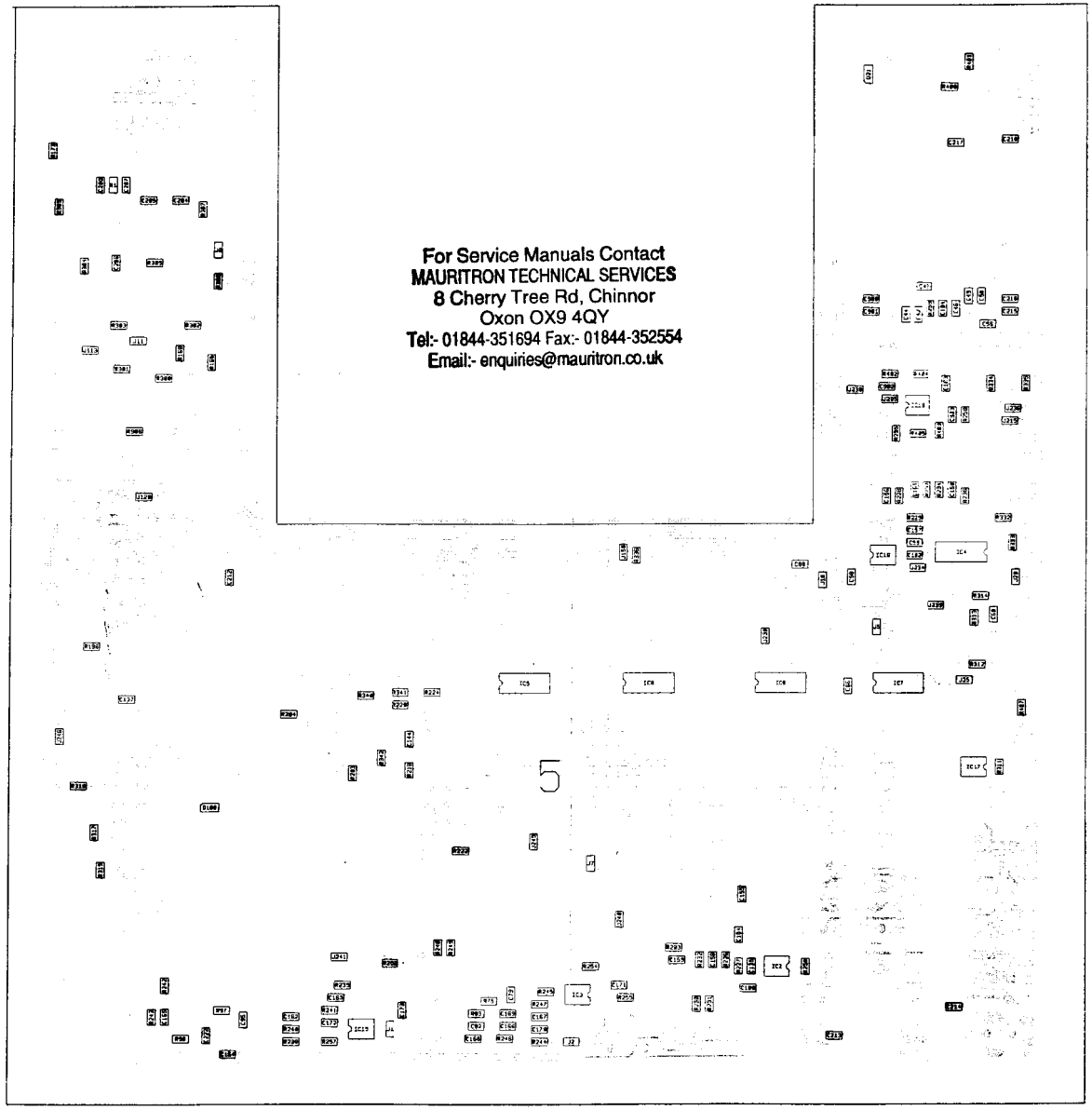
PCB8 NICAM





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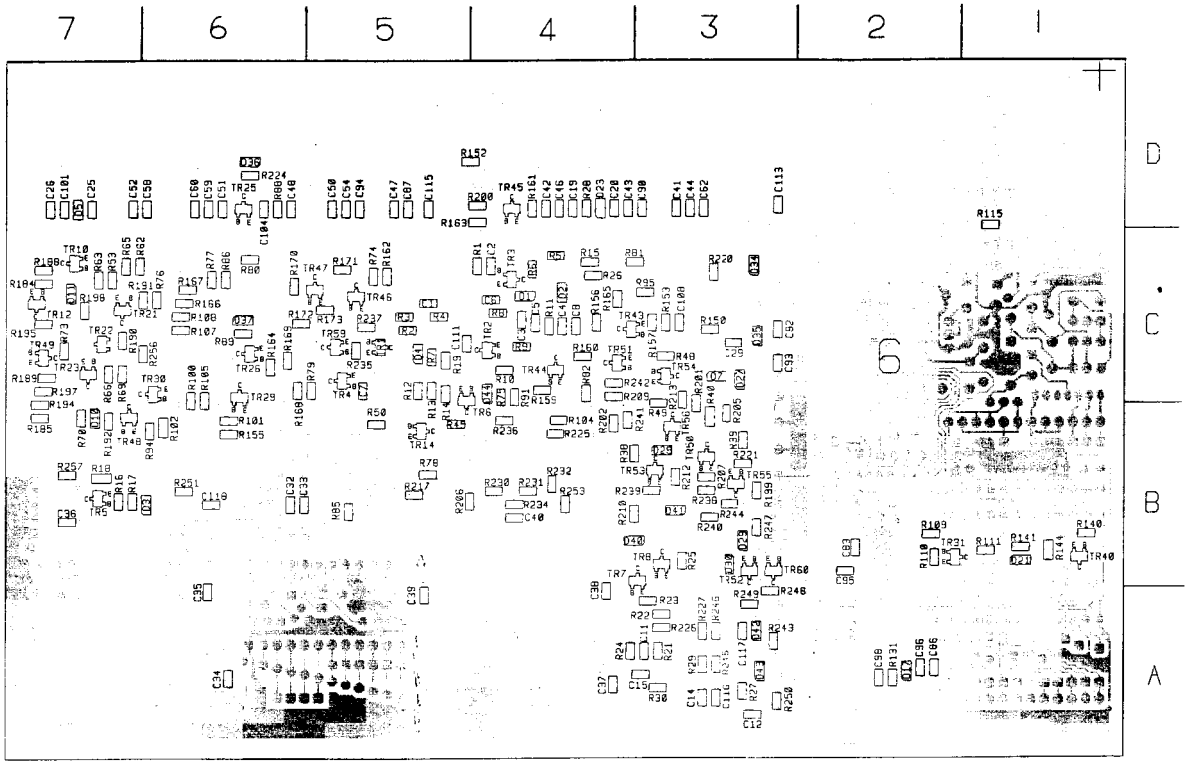
PCB6 MICROCOMPUTER AND TELETEXT



BLOCKDIAGRAM

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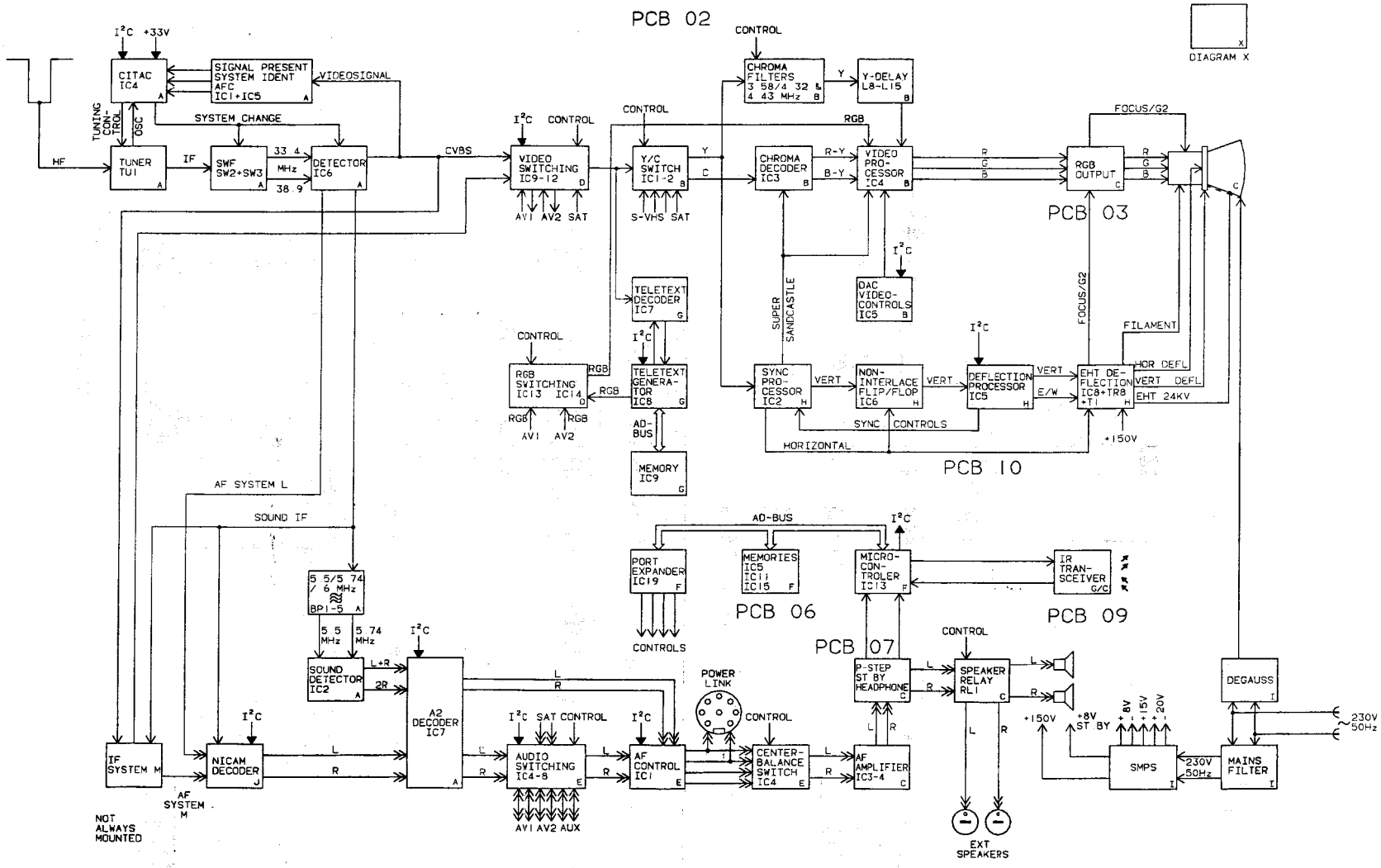
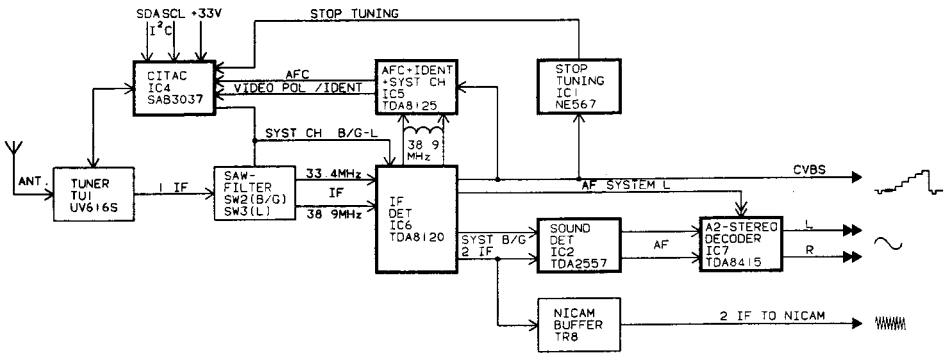
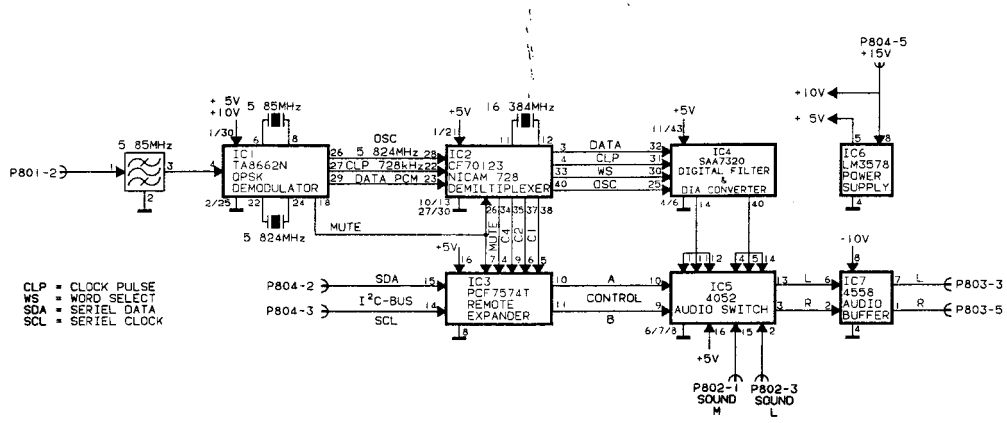


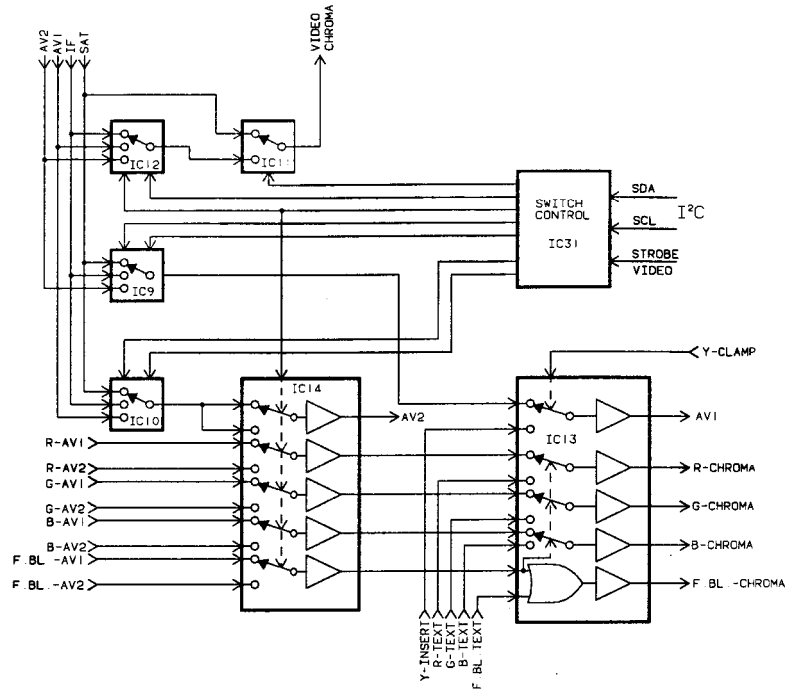
PCB1 TUNER AND IF

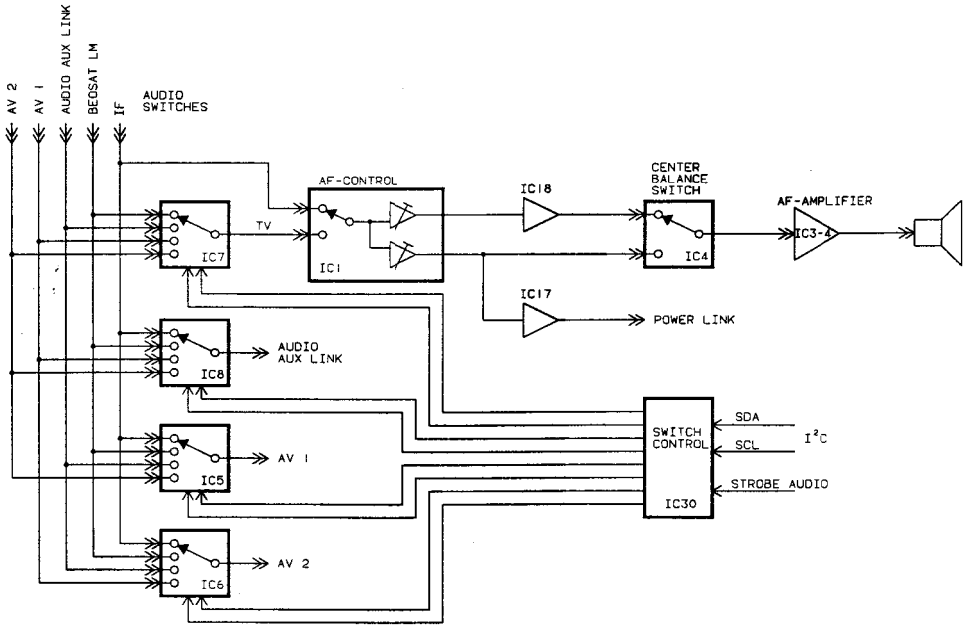


PCB8 NICAM



PCB5 VIDEO AND SOUND SWITCHING





PCB10 DEFLECTION

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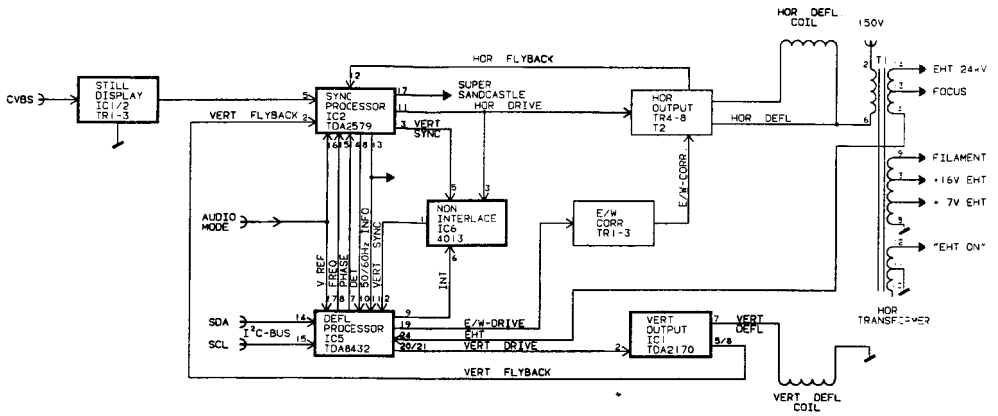
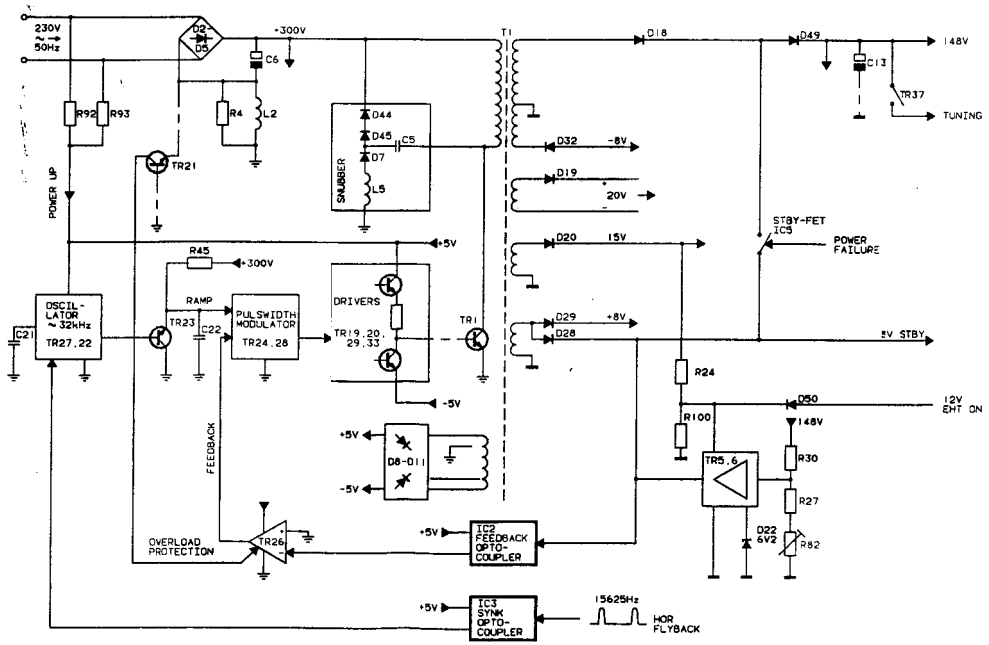
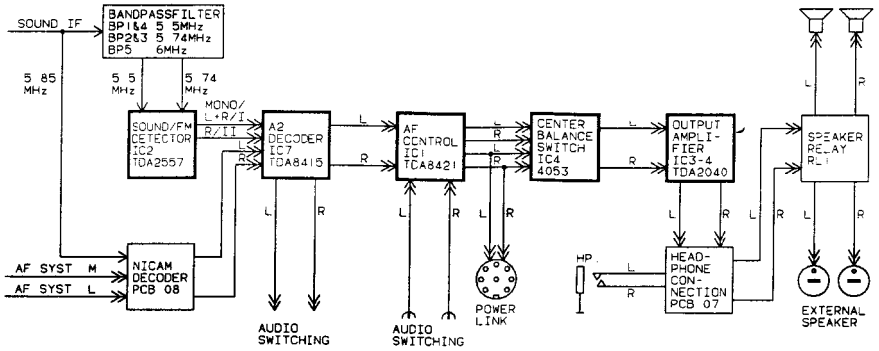


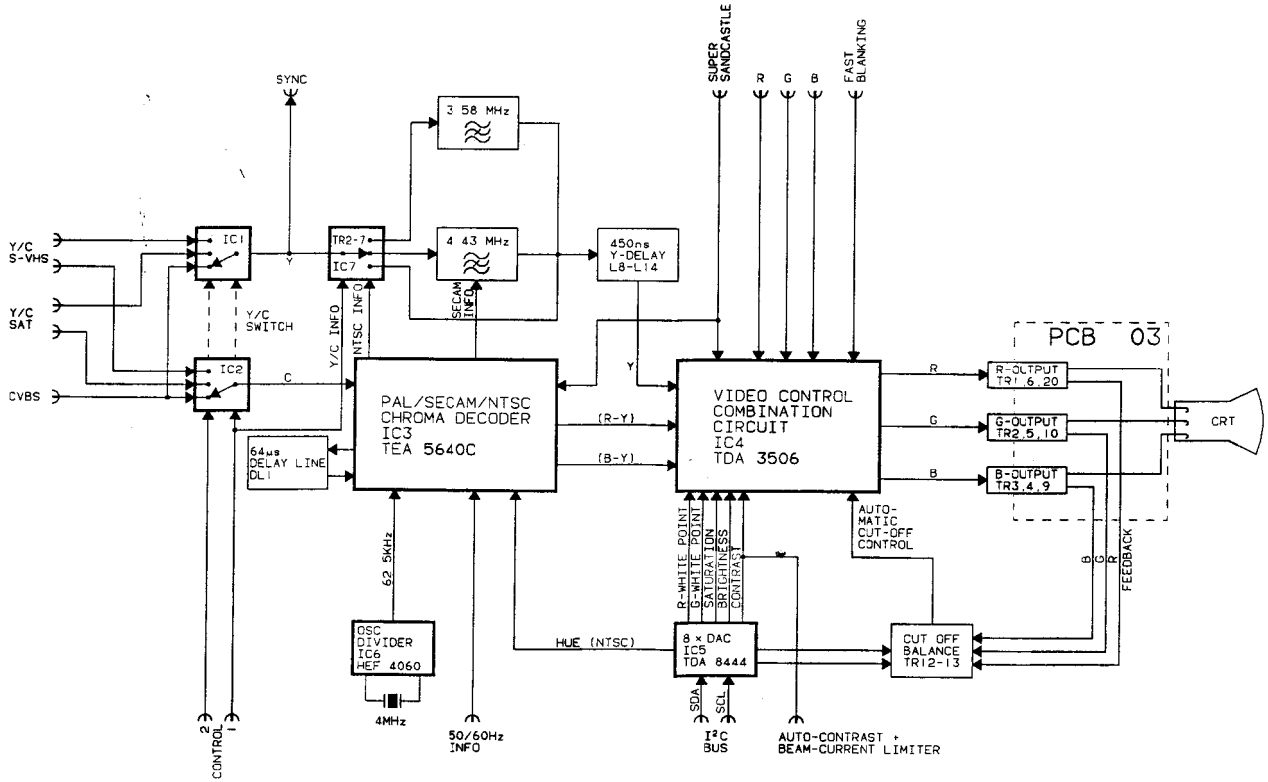
PCB4
SWITCH MODE
POWER SUPPLY



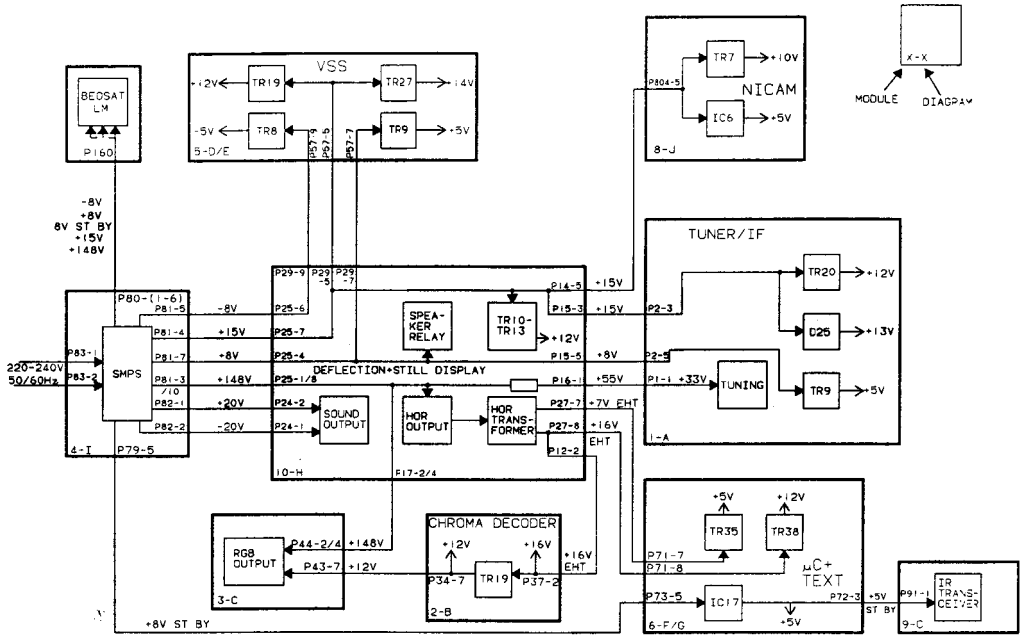
AUDIO SWITCHING



PCB2 PAL/SECAM/NTSC DECODER



SUPPLIES



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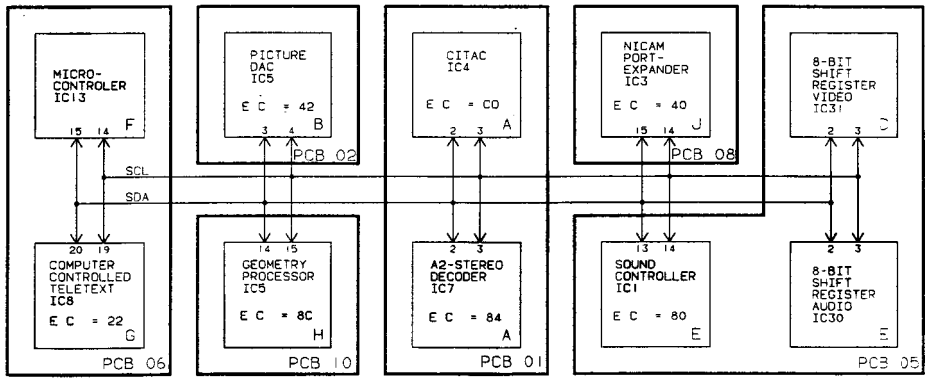
SYSTEM CONTROL



SDA = SYSTEM DATA

SCL = SYSTEM CLOCK

EC = ERROR CODE - IIC ADDRESS XX

3-1
3-1

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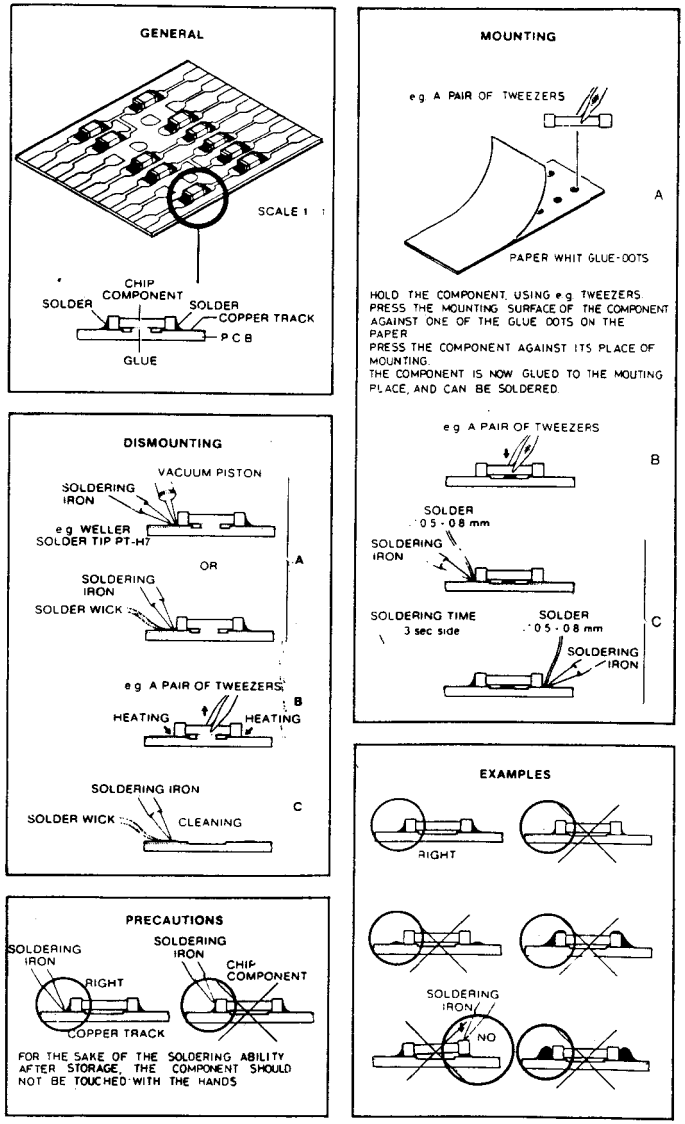
LIST OF ELECTRICAL PARTS

In the player chip components have been applied. For insertion and removal of chip components see the figure below.



PCB 01, 8007048
Tuner and IF, B/G-L

PCB 01, 8007052
Tuner and IF, I

** Only in I version*

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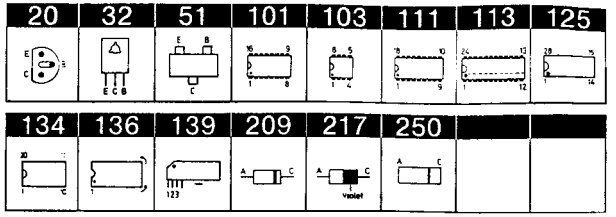


Resistors not referred to are standard, see page 3-12.

△ indicates that static electricity may destroy the component.

IC1	8341311	103	NE567 PLL	IC5	8341142	134	TDA8124
IC2	8340940	111	TDA2557	IC6	8341137	113	TDA8120
IC4	8341002	136	SAB3037	IC7	8341291	134	TDA8415

TR1	8320510	20	BC558B	TR16			
TR6-	8320509	20	BC548B	TR17	8320616	51	BC858B
TR8				TR18-	8320509	20	BC548B
TR9	8320512	20	BC338-25	TR19			
TR12	8320510	20	BC558B	TR20	8320840	32	BD436
TR13	8320615	51	BC848B	TR21-	8320509	20	BC548B
TR14-	8320509	20	BC548B	TR22			

D5-	8300635	250	BA683	D23	8300596	209	6,2V 2%
D9				D24	8300023	209	1N4002 100V
D14-	8300058	209	1N4148	D25-	8300058	209	1N4148
D15				D28			
D17	8300296	209	5,6V 2% 0,4W	D29	8300321	209	33V 5% 0,4W
D21	8300128	209	5,6V 5% 0,4W	D30	8300596	209	6,2V 2%
D22	8300635	250	BA683				

R17	5370326	10kΩ	20% 0,1W	R108	5370325	2,2kΩ	20% 0,1W
R93	5370326	10kΩ	20% 0,1W	R137	5370324	4,7kΩ	20% 0,1W
R105	5370326	10kΩ	20% 0,1W	R155	5020093	4,64kΩ	1% 1/4W
R106	5020093	4,64kΩ	1% 1/4W	R156	5020219	5,36kΩ	1% 1/4W
R108	5370324	4,7kΩ	20% 0,1W	R182	5020219	5,36kΩ	1% 1/4W

C2	4200512	1µF	20% 50V	C59	4200509	33µF	20% 25V
C3-	4010101	4,7nF	10% 63V	C61-	4000227	330pF	5% 63V
C4				C62			
C5	4200512	1µF	20% 50V	C63-	4100236	1nF	5% 63V
C8-	4000380	2,7pF	0,25pF 50V	C64			
C9				C65-	4000167	18pF	5% 63V
C30	4200515	4,7µF	20% 25V	C66			
C31	4200628	100µF	20% 16V	C67-	4100236	1nF	5% 63V
C32-	4200544	22µF	20% 16V	C68			
C33				C69-	4000167	18pF	5% 63V
C35-	4200512	1µF	20% 50V	C70			
C36				C71-	4130235	47nF	20% 63V
C37	4200510	10µF	20% 16V	C72			
C38-	4100235	680pF	5% 63V	C73	4010106	10nF	-20+80% 40V
C39				C74	4010107	22nF	-20+80% 40V
C40-	4010132	1nF	10% 50V	C75	4010106	10nF	-20+80% 40V
C41				C76	4010107	22nF	-20+80% 40V
C43-	4000274	12pF	5% 50V	C78	4200525	22µF	20% 10V
C44				C85	4200512	1µF	20% 50V
C45-	4010132	1nF	10% 50V	C86	4100243	8,2nF	5% 63V
C46				C91	4130347	5,6nF	10% 63V
C47	4010166	100nF	-20+80% 50V	C92	4130230	100nF	20% 63V
C48	4130136	1µF	20% 100V	C93	4130311	680nF	10% 63V
C49	4130313	470nF	20% 63V	C94	4130313	470nF	20% 63V
C50	4010132	1nF	10% 50V	C95	4130241	10nF	20% 63V
C51-	4000142	82pF	5% 63V	C95	4010106	10nF	-20+80% 40V
C52				C97	4200510	10µF	20% 16V
C53	4010209	47nF	10% 50V	C98	4010106	10nF	-20+80% 40V
C54	4010132	1nF	10% 50V	C100	4130255	22nF	5% 63V
C56	4010103	2,2nF	10% 63V	C101	4130257	33nF	20% 63V
C58	4000239	33pF	5% 50V	C102	4200517	2,2µF	20% 50V

C103	4010105	1nF 10% 63V	C115	4130313	470nF 20% 63V
C104	4010241	4,7nF 5% 50V	C116-	4010132	1nF 10% 50V
C105	4130230	100nF 20% 63V	C117		
C106	4130233	220nF 20% 63V	C118	4200510	10µF 20% 16V
C107-	4130306	100nF 10% 63V	C119-	4010176	10nF -20+80% 50V
C109			C120		
C111	4130230	100nF 20% 63V	C121	4010105	1nF 10% 63V
*C112	4130179	100nF 20% 63V	C122	4200510	10µF 20% 16V
C113	4200628	100µF 20% 16V	C123	4000286	470 pF 5% 50V
C114	4010132	1nF 10% 50V	C124	4130230	100nF 20% 63V

L4	8020551	Coil 4,7 µH	L16	8020738	Coil 330 nH-47pF
L10	8020807	Coil 10µH	L18	8020551	Coil 4,7 µH 10%
L11	8020600	Coil 1µH 10%	L19-	8020742	Coil 800 nH
L12	8020740	Coil 940 nH-18pF			5,5 MHz
L13	8020738	Coil 330 nH-47pF	L22		
L14	8020741	Coil 2,46 µH	*L21-	8020743	Coil 700nH
		5,5 MHz	L22		
L15	8020739	Coil 300 nH-47pF	L23	8022250	Coil 4,7 mH 5%

FE1-	6000030	Standard Wire
FE4		

TU1	8050117	Tuner UV

BP1	8030021	5,5 MHz±50 kHz	BP4	8030026	5,5 MHz±50 kHz
BP2	8030029	5,74 MHz+50 kHz	*BP5	8030033	6MHz
BP3	8030028	5,74 MHz±75 kHz			

SW2	8030158	Filter	SW3	8030082	Filter K3252L
		38,9/33,05 MHz			
*SW2	8030159	Filter			
		38,9/32,348MHz			

X1	8090000	Crystal 4 MHz	X2	8090105	Crystal 10,0 MHz

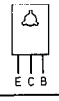
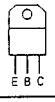
P0	7220129	Plug 2/2 pol	P5-	7220711	Plug 4 pol
P1	7220711	Plug 4 pol	P6		
P2	7220712	Plug 5 pol	P7	7220712	Plug 5 pol
P3	7220709	Plug 2 pol	P8	7220710	Plug 3 pol
P4	7220715	Plug 8 pol	P100	7210660	Jack plug

PCB 02, 8007050
PAL/SECAM/NTSC Decoder

IC1-	8341127	**139**	TA734	IC5	8341193	**101**	TDA8444
IC2				IC6Δ	8341230	**101**	4060
IC3	8341191	**125**	TEA5640C	IC7	8340569	**103**	LM358
IC4	8341192	**125**	TDA3506				

TR1	8320615	**51**	BC848B	TR13			
TR2	8320747	**51**	BC848C	TR14	8320615	**51**	BC848B
TR3	8320615	**51**	BC848	TR15-	8320509	**20**	BC548B
TR4	8320747	**51**	BC848C	TR16			
TR5	8320778	**51**	BC858C	TR17	8320615	**51**	BC848B
TR6	8320747	**51**	BC848C	TR18	8320317	**32**	BD135
TR7	8320778	**51**	BC858C	TR19	8320512	**20**	BC338-25
TR8-	8320747	**51**	BC848C	TR20	8320747	**51**	BC848C
TR10				TR21	8320615	**51**	BC848B
TR12-	8320747	**51**	BC848C	TR22	8320747	**51**	BC848C

D1	8300482	**217**	4148	D20-	8300058	**209**	1N4148
D4-	8300482	**217**	4148	D22			
D10				D23-	8300482	**217**	4148
D11	8300605	**209**	Z10V 5%	D24			
D12	8300482	**217**	4148	D25-	8300058	**209**	1N4148
D14	8300482	**217**	4148	D26			
D17	8300058	**209**	1N4148	D27-	8300482	**217**	4148
D18	8300173	**209**	8,2V 5% 0,4W	D28			
D19	8300029	**209**	12V 5% 0,4W				

17	20	32	36	136	209	212	214
							

221

Resistors not referred to are standard, see page 3-12.

△ indicates that static electricity may destroy the component.

R5	5020161	75Ω 1% 1/4W	R67	5011841	11,8kΩ 1% 1/8W
R9	5020161	75Ω 1% 1/4W	R88	5020239	24,3kΩ 1% 1/4W
R31	5011570	200Ω 1% 1/8W	R89	5020221	5,62kΩ 1% 1/4W
R61	5011600	100kΩ 1% 1/8W	R91	5021029	1,82kΩ 1% 1/4W
R63	5011843	80,6kΩ 1% 1/8W	R93	5021120	27Ω 5% 1W
R64	5011599	49,9kΩ 1% 1/8W	R94	5021122	100Ω 5% 1W
R65	5020542	22,1kΩ 1% 1/4W	R106	5370284	100kΩ 20% 0,1W
R66	5020318	13kΩ 1% 1/4W			

C1-	4200510	10µF 20% 16V	C45	4000281	82pF 5% 50V
C2			C46	4200483	47µF 20% 16V
C3	4200431	10µF 20% 16V	C47	4010166	100nF -20+80% 50V
C4	4130230	100nF 20% 63V	C48	4000280	68pF 5% 50V
C5-	4200510	10µF 20% 16V	C49	4130313	470nF 20% 63V
C6			C50	4000352	1nF 5% 50V
C7	4130230	100nF 20% 63V	C51	4000229	150pF 5% 50V
C9	4200510	10µF 20% 16V	C52	4010166	100nF -20+80% 50V
C10	4100210	1,5nF 5% 63V	C53	4000239	33pF 5% 50V
C11	4100236	1nF 5% 63V	C54	4000279	39pF 5% 50V
C12	4000239	33pF 5% 50V	C55	4130241	10nF 20% 63V
C13	4000240	56pF 5% 50V	C56	4130262	22nF 20% 63V
C14-	4010107	22nF -20+80% 40V	C57	4200512	1µF 20% 50V
C16			C58	4200510	10µF 20% 16V
C17-	4010177	22nF -20+80%	C59	4010105	1nF 10% 63V
C19			C60	4010177	22nF -20+80%
C20-	4130240	47nF 10% 63V	C61	4200403	100µF -20+50% 25V
C21			C62	4200544	22µF 20% 16V
C22	4010166	100nF -20+80%	C63	4100232	100pF 5% 63V
C24	4200512	1µF 20% 50V	C64	4000142	82pF 5% 63V
C25	4000326	680pF 5% 50V	C65	4000281	82pF 5% 50V
C26	4000286	470pF 5% 50V	C66	4000240	56pF 5% 50V
C27	4000326	680pF 5% 50V	C67	4000231	68pF 5% 50V
C28	4010172	3,3nF 10% 50V	C68	4000241	100pF 5% 50V
C29	4130240	47nF 10% 63V	C69	4000240	56pF 5% 50V
C30	4200544	22µF 20% 16V	C70-	4000241	100pF 5% 50V
C35-	4010106	10nF -20+80% 40V	C74		
C36			C75	4010106	10nF -20+80% 40V
C37	4130230	100nF 20% 63V	C79	4100236	1nF 5% 63V
C40	4200515	4,7µF 20% 25V	C80	4200512	1µF 20% 50V
C41	4130233	220nF 20% 63V	C81	4200515	4,7µF 20% 25V
C42	4130241	10nF 20% 63V	C82	4000279	39pF 5% 50V
C43	4200625	3,3µF 20% 50V	C83	4000284	330pF 5% 50V
C44	4000229	150pF 5% 50V			

L3-	8020608	Coil 10µH 5%	L14	8020608	Coil 10µH 5%
L4			L15	8020730	Coil 22µH 10%
L5	8020830	Coil 10µH	L16	8020751	Coil 0,86µH-
L6	8020608	Coil 10µH 5%			4,43 MHz
L7-	8020730	Coil 22µH 10%	L17	8020649	Coil 3,9µH 5%
L13					

DL1	6240012	Delay line 64µS

X1	8090000	Crystal 4,000 MHz

P0	7220129	Plug 2/2 pol		P38	7220712	Plug 5 pol	
P34	7220715	Plug 8 pol		P39	7220713	Plug 6 pol	
P35	7220711	Plug 4 pol		P40	7220710	Plug 3 pol	
P36	7220712	Plug 5 pol		P41	7220714	Plug 7 pol	
P37	7220713	Plug 6 pol					

PCB 03, 8007041
Video Output

TR1-TR3	8320623	**17**	BF423	TR4-TR6	8320440	**36**	BF869
D1-D4	8300409	**214**	BAV20	D5-D18	8300058	**209**	1N4148
R1-R3	5021172	10kΩ 5% 1W		R12			
				R19	5011897	1,2kΩ 5% 1/3W	
R10-	5000055	2,2kΩ 10% 1/2W		R20	5390004	potm. Focus	
C4	4130103	100nF 20% 250V		C6	4200515	4,7µF 20% 25V	
C5	4010211	2,2nF +100-0% 2KV					
L1	8020590	Coil 270µH 10%					
S1	7400038	Switch 2 pol					
P1	7200062	Socket picture tube		P44	7220427	Plug 5/5 pol	
P43	7220715	Plug 8 pol		P45	7500152	Contact pin	

PCB 04, 8007034
Switch mode power supply

IC2-IC4	8330234	**136**	CNY17-2ZW	IC5Δ	8320853		IRF624 100V
TR1	8320850	**35**	BUT12F	TR26			
TR5	8320509	**20**	BC548B	TR27-TR29	8320510	**20**	BC558B
TR6	8320510	**20**	BC558B				
TR8	8320509	**20**	BC548B	TR33	8320510	**20**	BC558B
TR19	8320626	**17**	BC368	TR34-	8320509	**20**	BC548B
TR20	8320796	**32**	BD435	TR35			
TR21	8320595	**20**	BC337-40	TR37	8320104	**20**	BC558B
TR22-	8320509	**20**	BC548B				
D1	8300058	**209**	1N4148	D28	8300671	**209**	RGP10B 100V
D2-D5	8300302	**212**	1N5407	D29	8300672		FES8BT 100V
				D32	8300671	**209**	RGP10B 100V
D7	8300670	**221**	BYV26D	D33-	8300058	**209**	1N4148
D8-D11	8300671	**209**	RGP10B	D34			
				D38-	8300314	**209**	47V 5% 0,4W
D18	8300345	**221**	BYW36, BYV95C	D39			
				D44-	8300675	**221**	BYV26B
D19	8300388	**209**	200V	D45			
D22	8300596	**209**	6,2V 2%	D46	8300058	**209**	1N4148
D24	8300058	**209**	1N4148	D47	8300310	**209**	10V 5% 0,4W
D25	8300201	**209**	6,2V 5% o,4W	D49	8300428	**209**	1N4007 1000V
D26	8300058	**209**	1N4148	D50	8300058	**209**	1N4148
D27	8300310	**209**	10V 5% 0,4W				
R2	5230009	40+1000Ω 265V		R76	5020714	0,1Ω 10% 0,4W	
R24	5020367	499Ω 1% 1/4W		R81	5020837	1,5kΩ 5% 1W	
R27	5020234	14,7kΩ 1% 1/4W		R82	5370402	2,2kΩ 30%	
R30	5020851	332kΩ 1% 1/4W		R100	5020183	464Ω 1% 1/4W	
R39	5021160	2,7Ω 5% 1W					

For Service Manuals Contact
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Oxon OX9 4QY
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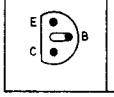
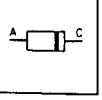
Email:- enquiries@mauritron.co.uk

20	101	103	111	125	136	139	209
							

217

Resistors not referred to are standard, see page 3-12.

△ indicates that static electricity may destroy the component.

C1	4130486	220nF 10% 250V	C29	4010240	2,2nF 20% 400V
C2	4130098	100nF 20% 400V	C30-	4010103	2,2nF 10% 63V
C3-	4130169	47nF 20% 250V	C33		
C4			C34	4010105	1nF 10% 63V
C5	4130474	6,8nF 20% 630V	C37-	4010105	1nF 10% 63V
C6	4200609	150µF 20% 385V	C39		
C7	4000153	33p 5% 50V	C40	4010230	220pF 20% 1KV
C10	4200610	470µF 20% 63V	C41	4010228	3,3nF -20+50% 400V
C11	4200612	1000µF -20+50% 25V	C42	4010104	220pF 10% 500V
C13	4200607	100µF 20% 250V	C43	4010229	100pF 20% 1KV
C15	4200612	1000µF -20+50% 25V	C45	4010240	2,2nF 20% 400V
			C46	4010105	1nF 10% 63V
C16	4200392	2200µF 20% 16V	C47-	4010104	220pF 10% 500V
C18	4200600	470µF 20% 16V	C50		
C19	4130306	100nF 10% 63V	C51	4130306	100nF 10% 63V
C20	4200952	47µF -20+50% 25V	C52	4010105	1nF 10% 63V
C21	4100237	2,2nF 5% 63V	C53	4010106	10nF -20+80% 40V
C22	4100236	1nF 5% 63V	C54	4010104	220pF 10% 500V
C23-	4010106	10nF -20+80% 40V	C59	4010106	10nF -20+80% 40V
C24			C60	4200544	22µF 20% 16V
C25	4200952	47µF -20+50% 25V	C61	4130230	100nF 20% 63V
C26	4200517	2,2µF 20% 50V			

L2	6850209	Coil 0,5µ	L5	8024047	Coil 250µH
L3	6850210	Coil 0,25µH	L6	6850195	Coil 1,3µH
L4	6850208	Coil 2µH			

FE1	6710023	5x0,7x10	FE3	6710023	5x0,7x10
FE2	6710022	3x0,7x10			

S1	8020325	Coil 10µH
SI1	7500223	Fuse holder
ST	8300320	T0509µH

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T1	8014096	Trafo switch	T6	8022295	Coil
T5	8022320	Coil			

P77	7500013	Contact pin	P81	7220419	Plug 10/10 pol
P78	7220406	Plug 2/2 pol	P82	7220424	Plug 2/2 pol
P79	7220713	Plug 6 pol	P83	7220897	Plug 2/2 pol
P80	7220415	Plug 6/6 pol	P84	7500013	Contact pin

PCB 05, 8007040
Video and sound switching

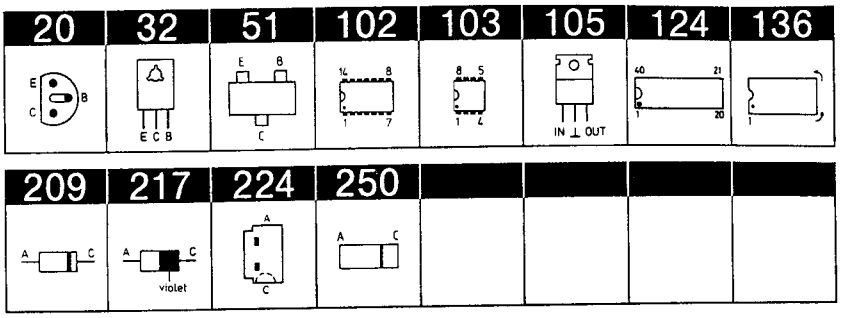
IC1	8341037	**125**	TDA8421
IC2-Δ	8341022	**103**	4558
IC3			
IC4Δ	8341072	**101**	4053
IC5-Δ	8341059	**101**	4052
IC8			
IC9-	8341127	**139**	TA7348
IC12			
IC13	8341167	**111**	TEA5115
IC14	8341168	**111**	TEA5116
IC15-Δ	8341022	**103**	4558
IC18			
IC30-Δ	8340782	**136**	4094
IC31			

TR8	8320523	**20**	BC328-25
TR9	8320512	**20**	BC338-25
TR18	8320509	**20**	BC548B
TR19	8320512	**20**	BC338-25
TR21-	8320512	**20**	BC338-25
TR22			
TR26	8320509	**20**	BC548B
TR27	8320552	**20**	BC327-25
TR28	8320503	**20**	BC557B

D1	8300058	**209**	1N4148
D4	8300201	**209**	Z6,2V 5% 0,4W
D5	8300154	**209**	Z6,8V 5% 0,4W
D9-	8300058	**209**	1N4148
D10			
D11	8300029	**209**	Z12V 5% 0,4W
D13	8300029	**209**	Z12V 5% 0,4W
D15	8300058	**209**	1N4148
D17-	8300058	**209**	1N4148
D20			
D21	8300482	**217**	4148
D100	8300482	**217**	4148

R160	5020495	10Ω 5% 1W
R166-	5021145	76,8Ω 1% 1/4W
R167		
R194	5021197	39Ω 5% 1W
R197	5011510	1kΩ 1% 1/4W
R207	5021197	39Ω 5% 1W
R213	5021145	76,8Ω 1% 1/4W
R217	5021145	76,8Ω 1% 1/4W
R338	5020489	10Ω 10% 0,3W

C42-	4010175	33nF 10% 50V
C43		
C44	4010173	4,7nF 10% 50V
C45	4010063	4,7nF 10% 63V
C46	4010242	3,9nF 10% 50V
C47	4010182	3,9nF 10% 50V
C48	4200628	100µF 20% 16V
C49-	4000289	15nF 10% 50V
C50		
C51	4200525	22µF 20% 10V
C52-	4200523	0,47µF 20% 50V
C55		
C56	4010166	100nF -20+80% 50V
C58	4010166	100nF -20+80% 50V
C60	4010166	100nF -20+80% 50V
C62-	4010105	1nF 10% 63V
C63		
C66	4010166	100nF -20+80% 50V
C72-	4130230	100nF 20% 63V
C73		
C79	4000233	220pF 5% 50V
C80-	4130230	100nF 20% 63V
C81		
C82	4000233	220pF 5% 50V
C83	4130230	100nF 20% 63V
C84-	4010155	220pF 10% 63V
C85		
C88	4010166	100nF -20+80% 50V
C92	4130230	100nF 20% 63V
C94	4130230	100nF 20% 63V
C95	4000233	220pF 5% 50V
C100	4010166	100nF -20+80% 50V
C104-	4130230	100nF 20% 63V
C105		
C110	4130230	100nF 20% 63V
C131	4010103	2,2nF 10% 50V
C133-	4130230	100nF 20% 63V
C134		
C135	4010166	100nF -20+80% 50V
C136	4130230	100nF 20% 63V
C137	4010166	100nF -20+80% 50V
C138-	4130230	100nF 20% 63V
C143		
C144	4010166	100nF -20+80% 50V
C145-	4130230	100nF 20% 63V
C150		
C151	4200826	10µF 20% 16V
C152-	4200431	10µF 20% 16V
C153		
C154-	4000284	330pF 5% 50V
C157		
C158-	4000287	220nF -20+80% 25V
C162-	4000287	220nF -20+80% 25V
C163		
C165	4000287	220nF -20+80% 25V
C166-	4000284	330pF 5% 50V
C167		
C168-	4000287	220nF -20+80% 25V
C169		
C170-	4010166	100nF -20+80% 50V
C173		
C182	4010166	100nF -20+80% 50V
C183-	4000287	220nF -20+80% 25V
C184		
C185-	4200515	4,7µF 20% 25V
C186		
C188	4010106	10nF -20+80% 40V
C189	4010105	1nF 10% 50V
C190	4130230	100nF 20% 63V
C191-	4200510	10µF 20% 16V
C200		
C201	4200826	10µF 20% 16V
C204-	4000240	56pF 5% 50V
C205		
C206-	4000278	27pF 5% 50V
C207		
C208	4000281	82pF 5% 50V
C209	4200525	22µF 20% 10V
C210	4010107	22nF -20+80% 40V
C211	4200431	10µF 20% 16V
C212	4010170	2,2nF 10% 50V
C213-	4010157	10nF 10% 50V
C214		
C215-	4010170	2,2nF 10% 50V
C218		
C219-	4200525	22µF 20% 10V
C220		
C221	4200600	470µF 20% 16V
C222	4000233	220pF 5% 50V
C902-	4010166	100nF -20+80% 50V
C903		



Resistors not referred to are standard, see page 3-12.
⌗ only used in early types
△ indicates that static electricity may destroy the component.

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PCB 06, 8007025
Teletext and uP System

PCB 06, 8007384
Teletext and uP System, E

BP1-BP3	7500013	Contact pin

P47	7220709	Plug 2 pol
P48	7220129	Plug 2/2 pol
P49	7220712	Plug 5 pol
P50	7220716	Plug 9 pol
P51	7220711	Plug 4 pol
P52	7220709	Plug 2 pol
P53	7220712	Plug 5 pol
P54	7220715	Plug 8 pol
P55	7220710	Plug 3 pol
P56	7220711	Plug 4 pol
P57	7220717	Plug 10 pol
P58	7220413	Plug 4/4 pol
P59	7220709	Plug 2 pol
P60	7220711	Plug 4 pol
P61	7220714	Plug 7 pol
P62	7220712	Plug 5 pol
P63	7220714	Plug 7 pol
P64	3168760	Din/Scart

IC1	8341126	**136**	74HCT138
IC4	8340777	**136**	74HCT573
IC5	8341125	**136**	2816B
IC7	8340720	**136**	SAA5231
IC8	8341068	**124**	SAA5243
IC9	8341463	**136**	6264
IC10△	8340167	**102**	4001
IC11	8340885	**136**	6264
IC13	8341034	**124**	80C32
IC15△	8341713		S/W 1.5 S
IC15△	8341470		S/W 1.5 P
IC15△	8341694	**136**	S/W 1.5 E
IC16	8341233	**103**	TL7705
IC17	8341227	**105**	7205
IC19	8341322	**124**	82C55A

TR1	8320615	**51**	BC848B
TR2	8320740	**51**	BF840
TR3	8320616	**51**	BC858B
TR4-TR5	8320615	**51**	BC848B
TR6	8320616	**51**	BC858B
TR7	8320747	**51**	BC848C
TR8	8320615	**51**	BC848B
TR9	8320509	**20**	BC548B
TR10	8320615	**51**	BC848B
TR12	8320615	**51**	BC848B
TR14	8320615	**51**	BC848B
TR21-TR23	8320615	**51**	BC848B
TR25-TR26	8320616	**51**	BC858B
TR29	8320615	**51**	BC848B
TR30	8320616	**51**	BC858B
TR31	8320615	**51**	BC848B
TR35	8320523	**20**	BC328-25
TR36	8320317	**32**	BD135
TR37-TR38	8320512	**20**	BC338-25
TR39	8320509	**20**	BC548B
TR40	8320615	**51**	BC848B
TR43	8320616	**51**	BC858B
TR44	8320615	**51**	BC848B
TR45-TR49	8320616	**51**	BC858B
TR50	8320615	**51**	BC848B
TR51	8320616	**51**	BC858B
TR52-TR56	8320615	**51**	BC848B
TR58	8320509	**20**	BC548B
TR59	8320616	**51**	BC858B
TR60	8320615	**51**	BC848B

D1-D4	8300482	**217**	4148 75V
D5	8300520	**224**	Z6,8V 5%
D7	8300482	**217**	4148
D10-D11	8300482	**217**	4148
D17	8300562	**250**	Z5,6V 2%
D18	8300058	**209**	1N4148
D19	8300316	**209**	Z 13V 5% 0,4W
D20	8300058	**209**	1N4148
D21	8300482	**217**	4148
D23	8300482	**217**	4148
D27	8300482	**217**	4148
D28	8300520	**224**	Z6,8V 5%
D29-D30	8300482	**217**	4148
D34-D35	8300482	**217**	4148
D36-D37	8300520	**224**	Z6,8V 5%
D38	8300556	**209**	Z6,2V 1,3W
D40-D44	8300482	**217**	4148

R174-R175	5020569	1,3kΩ 1% 1/4W	R178-R180	5011509	1,5kΩ 1% 1/4W
R176-R177	5020872	619Ω 1% 1/4W	R181	5020569	1,3kΩ 1% 1/4W
			R182	5020872	619Ω 1% 1/4W

C1	4000292	100pF 5% 50V	C66	4200637	100µF -10+100% 16V
C2	4010170	2,2nF 10% 50V	C67	4200516	47µF 20% 16V
C3	4000236	470pF 10% 50V	C69	4000165	220pF 5% 63V
C4	4000293	47pF 5% 50V	C70	4130290	68nF 20% 63V
C5	4010170	2,2nF 10% 50V	C71-C72	4000146	15pF 5% 63V
C6	4000236	470pF 10% 50V			
C7	4000293	47pF 5% 50V	C73-C74	4010105	1nF 10% 63V
C8	4000287	220nF -20+80% 25V			
C9	4130315	15nF 5% 63V	C75	4130262	22nF 20% 63V
C10	4130308	220nF 10% 63V	C76	4010110	270pF 10% 63V
C11	4000233	220pF 5% 50V	C77	4000139	100pF 5% 63V
C12	4010177	22nF -20+80% 50V	C78	4200616	6,8µF 20% 25V
C14	4000241	100pF 5% 50V	C79	4200512	1µF 20% 50V
	¤ 4000239	33pF 5% 50V	C80	4130240	47nF 10% 63V
C15	4000241	100pF 5% 50V	C81	4130308	220nF 10% 63V
	¤ 4000233	220pF 5% 50V	C82	4000140	27pF 5% 63V
C17	4130313	470nF 20% 63V	C83	4010166	100nF -20+80% 50V
C19	4000286	470pF 5% 50V	C84	4010106	10nF -20+80% 40V
C20	4010166	100nF -20+80% 50V	C85	4010103	2,2nF 10% 63V
C25-C26	4000236	470pF 10% 50V	C86	4010166	100nF -20+80% 50V
			C87	4010170	2,2nF 10% 50V
C29	4010170	2,2nF 10% 50V	C90	4010157	10nF 10% 50V
C32-C33	4000239	33pF 5% 50V	C91	4200510	10µF 20% 16V
			C92-C93	4000234	47pF 5% 50V
C34-C40	4010166	100nF -20+80% 50V			
			C94	4010170	2,2nF 10% 50V
C41-C42	4010170	2,2nF 10% 50V	C95-C96	4010166	100nF -20+80% 50V
C43	4010157	10nF 10% 50V	C98	4010170	2,2nF 10% 50V
C44	4010170	2,2nF 10% 50V	C101	4000286	470pF 5% 50V
C46-C48	4010170	2,2nF 10% 50V	C104	4000236	470pF 10% 50V
			C105	4200512	1µF 20% 50V
C49	4010103	2,2nF 10% 63V	C106	4200510	10µF 20% 16V
C50-C52	4010170	2,2nF 10% 50V	C108	4010157	10nF 10% 50V
			C109	4130230	100nF 20% 63V
C54	4010170	2,2nF 10% 50V	C110	4130233	220nF 20% 63V
C57	4010103	2,2nF 10% 63V	C111	4000286	470pF 5% 50V
C58	4000241	100pF 5% 50V	C112	4010103	2,2nF 10% 63V
C59-C60	4000281	82pF 5% 50V	C113	4010166	100nF -20+80% 50V
			C115	4010170	2,2nF 10% 50V
C62	4010170	2,2nF 10% 50V	C116-C117	4010157	10nF 10% 50V
C64	4200517	2,2µF 20% 50V			
C65	4130230	100nF 20% 63V	C118	4000234	47pF 5% 50V

BP1	8030056	455kHz	X3	8090041	13.875 MHz
			X4	8090075	12 MHz

F1	6604036	315mAF

L1	8020807	Coil 10µH	L9-L10	8020565	Coil 2,2µH
L2	8020552	Coil 10µH 10%			
L7	8020554	Coil 15µH 5%	L11-L12	8020552	Coil 10µH 10%
L8	8020555	Coil 6MHz			

P65	7220710	Plug 3 pol	P70	7220709	Plug 2 pol
P66	7220714	Plug 7 pol	P71	7220716	Plug 9 pol
P67	7220712	Plug 5 pol	P72	7220717	Plug 10 pol
P68	7220714	Plug 7 pol	P73	7220713	Plug 6 pol
P69	7220711	Plug 4 pol			

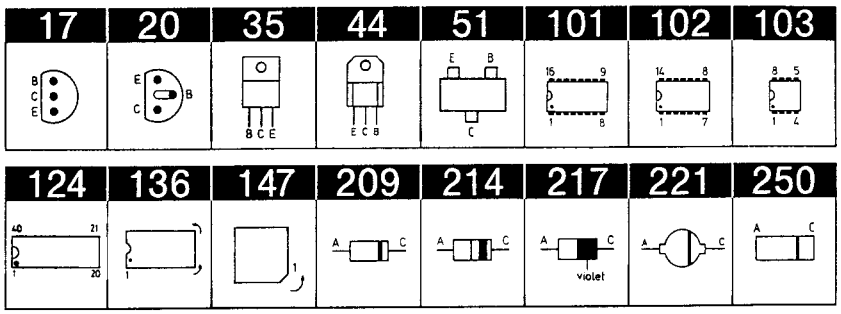
PCB 07, Headphone
8007068 LX45/5500

S1-S2	7400318	Switch 1 pol	S3	7210386	Socket Jack

8007211 MX5500
8007212 MX3500
PCB07 8007213
Push buttom panel
MX3500

P87	7220710	Plug 3 pol	P88	7220427	Plug 5/5 pol

T1	8014111	Trafo auto inp. Only MX3500		¤ 8024049	Coil 20 mH Only MX3500



Resistors not referred to are standard, see page 3-12.

△ indicates that static electricity may destroy the component.

PCB 08, 8007066
Nicam decoder, B/G

IC1	8341099	**136**	TA8662N	IC5△	8341257	**102**	74HC4052
IC2	8341159	**124**	CF70123	IC6	8341225	**103**	LM3578
IC3	8341173	**101**	PCF8574	IC7△	8341022	**103**	4558
IC4	8341174	**147**	SAA7320				

PCB 08, 8007071
Nicam decoder, I

** Only in I version*

TR1-TR2	8320615	**51**	BC848B	TR8-TR9	8320609	**51**	BC808-25
TR3	8320904	**22**	BF256A	TR10	8320615	**51**	BC848B
TR7	8320439	**35**	BD535				

D1	8300730	**209**	SIBB809	D101	8300677	**250**	Z4,7V 5% 0,5W
D2	8300345	**221**					
D6-D7	8300482	**217**	4148	D102	8300482	**217**	4148
D100	8300482	**217**	4148	D103	8300605	**250**	Z10V 5%

R31	5011527	12kΩ 1% 1/8W	R46-R47	5011600	100kΩ 1% 1/8W
R32	5011600	100kΩ 1% 1/8W	R100-R101	5011600	100kΩ 1% 1/8W
R33-R35	5011527	12kΩ 1% 1/8W	R102-R103	5011839	180kΩ 1% 1/8W
R36	5011600	100kΩ 1% 1/8W			
R41-R42	5011600	100kΩ 1% 1/8W			

C1	4010166	100nF -20+80% 50V	C44-C45	4010220	100nF 10% 50V
C2	4010220	100nF 10% 50V	C46-C49	4200826	10µF 20% 16V
C3	4010166	100nF -20+80% 50V	C50	4000342	1nF 10% 50V
C4	4010157	10nF 10% 50V	C51	4000277	22pF 5% 50V
C6	4010176	10nF -20+80% 50V	C52	4200760	220µF -10+50% 16V
C7	4000240	56pF 5% 50V	C53	4200946	10µF 20% 50V
C8-C9	4000277	22pF 5% 50V	C54	4010220	100nF 10% 50V
C11	4010176	10nF -20+80% 50V	C55	4000241	100pF 5% 50V
C12-C13	4000282	180pF 5% 50V	C56-C59	4130485	470nF 20% 63V
C15-C20	4010220	100nF 10% 50V	C60	4010166	100nF -20+80% 50V
C21-C23	4010176	10nF -20+80% 50V	C62	4010166	100nF -20+80% 50V
C25	4010176	10nF -20+80% 50V	C63	4000275	15pF 5% 50V
C27	4000281	82pF 5% 50V	C100	4200826	10µF 20% 16V
C29	4000342	1nF 10% 50V	C112	4010220	100nF 10% 50V
C30	4010220	100nF 10% 50V	C115	4010220	100nF 10% 50V
C31	4000278	27pF 5% 50V	C116	4000234	47pF 5% 50V
C32	4000277	22pF 5% 50V	C117	4010220	100nF 10% 50V
C34	4340034	7,5-50pF	C118-C119	4000277	22pF 5% 50V
C35	4000286	470pF 5% 50V	C120-C123	4000234	47pF 5% 50V
C36	4200826	10µF 20% 16V	C124	4000352	1nF 5% 50V
C37	4010172	3,3nF 10% 50V	C125	4000234	47pF 5% 50V
C38	4000241	100pF 5% 50V	C126-C130	4000352	1nF 5% 50V
C39	4010220	100nF 10% 50V	C131-C132	4000236	470pF 10% 50V
C40	4000286	470pF 5% 50V			
C41	4000241	100pF 5% 50V			
C42	4010172	3,3nF 10% 50V			
C43	4000234	47pF 5% 50V			

For Service Manuals Contact
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Email:- enquiries@mauritron.co.uk

L1-	8020806	Coil 1µH 10%		L6	8020759	Coil 1µH 10%	
L2				L7	8020609	Coil 3,3µH	
L3	8020772	Coil 10µH		L20	8020804	Coil 33µH 10%	
L4-	8020609	Coil 3,3µH		L30	8020609	Coil 3,3µH	
L5							

BP1	8020734	Coil 5,85 MHz		* BP1	8020735	Coil 6,552MHz	

X1	8090085	Crystal 5,85 MHz		X2	8090110	Crystal 16,384 MHz	
* X1	8090081	Crystal 6,552MHz		X3	8090083	Crystal 5,824 MHz	

P801	7220710	Plug 3 pol		P804	7220713	Plug 6 pol	
P802	7220711	Plug 4 pol		P807	7220714	Plug 7 pol	
P803	7220712	Plug 5 pol					

PCB 09, 8007042
IR receiver and transmitter

TR1	8320740	**17**	BF423	TR5			
TR2	8320636	**51**	BC849B	TR6	8320616	**51**	BC858B
TR3-	8320691	**17**	BC369	TR7	8320615	**51**	BC848B

D3-	8330145		880nM	D5-	8330237	**245**	IR Emitter
D4			455 KHz	D7			
				D8	8330236	**222**	BIcolor

C1-	4000286	470pF 5% 50V		C4	**4000287**	220nF -20+80% 25V	
C2				C7-	**4010166**	100nF -20+80% 50V	
C3	4000234	47pF 5% 50V		C10			

L1	8020590	Coil 270µH 10%		L2	8020768	Coil 455 KHz	

P91	7220715	Plug 8 pol	

PCB 10, 8007134
Time base and deflection

IC1	8340717	**133**	TDA 2170	IC5	8341359	**113**	TDA8432
IC2	8341131	**111**	TDA2579A	IC6Δ	8340176	**102**	4013
IC3	8341236	**136**	TDA 2050	IC7	8341222	**35**	BDX53A

PCB 10, 8007379
Time base and deflection, ver. E
(see soldering side)

**Only in PCB E version*

Still display, 8007217

TR1	8320239	**44**	BD135	TR8	8320857	**39**	BU508AF
TR2	8320509	**20**	BC548B	TR9-	8320509	**20**	BC548B
TR3	8320510	**20**	BC558B	TR11			
TR4	8320595	**20**	BC337-40	TR12	8320512	**20**	BC338-25
*	8320510	**20**	BC558B	TR13-	8320509	**20**	BC548B
TR5	8320626	**17**	BC368	TR17			
*	8320922	**21**	VN2010	TR18	8320552	**20**	BC327-25
TR6	8320509	**20**	BC548B	TR20	8320523	**20**	BC328-25
TR7	8320691	**17**	BC369	TR21	8320510	**20**	BC558B

D1	8300023	**209**	1N4002	D22	8300518	**217**	BA157
D2	8300058	**209**	1N4148	D23	8300503	**209**	RGP10G
D3	8300486	**214**	BAX14	D24-	8300345	**221**	BYV95C
D4-	8300058	**209**	1N4148	D25			
D6				D26	8300503	**209**	RGP10G
* D4-	8300518	**217**	BA157	D27	8300058	**209**	1N4148
D5				D29-	8300058	**209**	1N4148
* D6	8300023	**209**	1N4002	D31			
D8	8300738	**221**	BY228	D32-	8300023	**209**	1N4002
D9	8300345	**221**	BYV95C	D33			
* D11	8300029	**209**	Z12V 0,4W	D34	8300169	**209**	Z 5,1V 5%
D12	8300058	**209**	1N4148				0,5W
D15-	8300058	**209**	1N4148	D35	8300058	**209**	1N4148
D16				D37	8300201	**209**	Z 6,2V 5%
D17	8300596	**209**	Z6,2V 2%				0,4W
D18	8300058	**209**	1N4148	D40	8300023	**209**	1N4002
D19	8300596	**209**	Z6,2V 2%	D41-	8300058	**209**	1N4148
				D42			

R1	5020784	1Ω 5% 1W	R98	5011744	24kΩ 1% 1/4W
R22	5020464	2,2Ω 5% 1W	R107	5020962	4,7Ω 5% 0,5W
R23	5020448	15Ω 5% 2W	R108	5021054	1Ω 10% 0,30W
R33	5020709	100Ω 5% 2W	R109	5020499	0,1Ω 10% 0,4W
R36	5020713	1kΩ 10% 0,5W	R110-R111	5020812	0,22Ω 10% 0,4W
R64	5020114	11kΩ 1% 1/4W			
R77	5011745	33kΩ 1% 1/4W	R112	5020499	0,1Ω 10% 0,4W
R85	5020195	1,62kΩ 1% 1/4W	R133	5020229	9,53kΩ 1% 1/4W
R89	5011210	1,05kΩ 1% 1/4W	R181	5021125	3,3kΩ 5% 1W
R91	5020835	1,37kΩ 1% 1/4W			

C1	4130233	220nF 20% 63V	C45	4130241	10nF 20% 63V
C2	4201082	100µF -10+100% 40V	C46-C47	4010107	22nF -20+80% 40V
C3	4000193	47pF 5% 63V	C48	4130230	100nF 20% 63V
C4-C5	4130233	220nF 20% 63V	C49	4200704	470µF 20% 25V
			C50	4130241	10nF 20% 63V
C6	4201082	100µF -10+100% 40V	C51	4130404	1,8nF 10% 1500V
			C52	4200512	1µF 20% 50V
C7	4010105	1nF 10% 63V	C53	4130029	470nF 10% 250V
C8	4130136	1µF 20% 100V	C54-	4201082	100µF -10+100% 40V
C9	4200760	220µF -10+50% 16V			
*	4010123	1nF 10% 500V	C56		
C10	4010105	1nF 10% 63V	C58	4130234	470nF 10% 63V
*	4130308	220nF 10% 63V	C59	4200515	4,7µF 20% 25V
C11	4200395	470µF -20+50% 16V	C60	4010103	2,2nF 10% 63V
*	4130404	1,8nF 10% 1500V	C61-C62	4200617	47µF 20% 10V
C12	4200525	22µF 20% 10V			
*	4200760	220µF 20% 16V	C63	4130313	470nF 20% 63V
C13	4130241	10nF 20% 63V	C64	4200525	22µF 20% 10V
C14	4200512	1µF 20% 50V	C65	4200559	3300µF -10+50% 40V
C17	4130372	6,8nF 20% 400V			
C18	4130081	10nF 20% 250V	C66-C67	4130233	220nF 20% 63V
C19	4130323	6,8nF 5% 1500V			
C20	4130325	18nF 5% 63V	C68	4200515	4,7µF 20% 25V
C21	4130349	300nF 5% 250V	C69	4010103	2,2nF 10% 63V
C22	4130326	560nF 5% 250V	C70-C71	4200617	47µF 20% 10V
C23-C24	4200525	22µF 20% 10V			
			C72	4200559	3300µF -10+50% 40V
C25	4130307	150nF 10% 63V			
C26	4130234	470nF 10% 63V	C73-C74	4130233	220nF 20% 63V
C27	4200515	4,7µF 20% 25V			
C28	4200510	10µF 20% 16V	C75	4010107	22nF -20+80% 40V
C29	4130230	100nF 20% 63V	C76	4100289	2,7nF 1% 63V
C30	4130303	15nF 10% 63V	C85	4130308	220nF 10% 63V
C31-C32	4130241	10nF 20% 63V	C86-C87	4000243	100pF 5% 63V
C33	4130230	100nF 20% 63V	C90	4130230	100nF 20% 63V
C36	4130230	100nF 20% 63V	C93	4010111	3,3nF 10% 63V
C37	4130241	10nF 20% 63V	C94	4000243	100pF 5% 63V
C39	4130230	100nF 20% 63V	C95	4010128	470pF 10% 50V
C40	4200616	6,8µF 20% 25V	C96	4200628	100µF 20% 16V
C41	4200517	2,2µF 20% 50V	C97	4130103	100nF 20% 250V
C42	4200508	22µF 20% 25V	C98	4130230	100nF 20% 63V
C44	4130313	470nF 20% 63V	C99	4010106	10nF -20+80% 40V

L1	6850195	Coil 1,3µH	L4	8024046	Trafo coil
L2	8020564	Coil 160µ-200µ-10µH	L5	8020660	Coil 100µH
			L8-L9	6850214	Coil 0,8µH
L3	8024045	Coil			

RL1	7600098	Relay 9V

S1	8020325	Coil 10µH

T1	8014094	Trafo	T3	8014102	Trafo
T2	8014074	Trafo			

For Service Manuals Contact
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Email:- enquiries@mauritron.co.uk

3-12

P12	7220713	Plug 6 pol	P23	7220427	Plug 5/5 pol
P13	7220712	Plug 5 pol	P24	7220424	Plug 2/2 pol
P14	7220713	Plug 6 pol	P25	7220432	Plug 10/10 pol
P15	7220712	Plug 5 pol	P26	7220717	Plug 10 pol
P16	7220711	Plug 4 pol	P27	7220716	Plug 9 pol
P17	7220427	Plug 5/5 pol	P28	7220426	Plug 4/4 pol
P18-	7220411	Plug 2/2 pol	P29	7220717	Plug 10 pol
P19			P30	7220711	Plug 4 pol
P20	7220429	Plug 7/7 pol	P31	7220714	Plug 7 pol
P21	7220715	Plug 8 pol	P32	7220424	Plug 2/2 pol
P22	7220710	Plug 3 pol			

PCB 63, 8039082
Crossover network, LX5500

R1	5100373	2,2Ω 10% 3W	R3	5020447	15Ω 5% 2W, only LX4500
R2	5100374	4,7Ω 10% 2W			

PCB 63, 8039075
Crossover network, LX4500

C1	4200560	2,2µF 20%	C3	4200560	2,2µF 20%, only LX5500
C2	4130228	470nF 20% 63V, only LX5500	C4	4200336	6,8µF 20%, only LX5500

L1	**6850146**	Coil 0,47µH-0,74Ω	L2	6850207	Coil 470µH-1,8Ω

PCB 29, 8003719, Transposer

TR1	**8320670**	**51 BFT 25**	TR4	8320615	**51** BC 848B
TR2	**8320615**	**51 BC 848B**	TR5	8320672	**51** BFS 20
TR3	**8320754**	**53 BF 992**			

D1-4	**8300478**	**209 BA 483**			

C1-7	4000342	1 nF 10% 50V	C16	4000342	1 nF 10% 50V
C8	4000337	1.8 pF ±0.25 pF 63V	C17	4000332	8.2 pF ±0.5 pF 50V
C9	4000276	18 pF 5% 50V	C18	4000275	15 pF 5% 50V
C10	4000229	150 pF 5% 50V	C19	4000276	18 pF 5% 50V
C11	4000278	27 pF 5% 50V	C20	4000267	3 pF ±0.25 pF 50V
C12	4000331	6.8 pF ±0.25 pF 50V	C21	4000342	1 nF 10% 50V
C13	4000274	12 pF 5% 50V	C22	4000331	6.8 pF ±0.25 pF 50V
C14	4000330	5.6 pF ±0.5 pF 50V	C23	4000274	12 pF 5% 50V
C15	4000337	1.8 pF ±0.25 pF 63V	C24	4000342	1 nF 10% 50V

L1-2	8020609	Coil 3.3 µH	L6	6850174	Coil 860 nH
L3	6850203	Coil 400 nH	L7	6850202	Coil 235 nH
L4	6850177	Coil 97 nH	L8	**6850179**	Coil 58 nH
L5	6850175	Coil 52 nH			

	7210589	Socket COAX, female		**3164635**	Cap, bottom
	7220539	Socket COAX, male		**6270386**	Wire w/plug
	3164631	Cap, top			

Resistors 5% 1/2 W

	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0		5011000	5011013	5011028	5011044	5010313	5011069	5011083
1.2	5011406	5011001	5011014	5011030	5011045	5011058	5010421	
1.5	5010727	5011002	5011015	5011031	5011046	5011059	5011071	
1.8	5010857	5010787	5011016	5011033	5011047		5011072	
2.2	5011335	5010708	5010815	5011034	5011048	5011061	5011074	
2.7	5011612	5010803	5011018	5010055	5011049	5011062	5011075	
3.3	5010255	5011007	5011019	5011037		5011063	5010381	
3.9		5010782	5011021	5010700	5011051		5010392	
4.7	5010765	5011009	5011022	5010035	5010036	5011065	5011078	
5.6		5011010	5011023	5011041		5011066	5011079	
6.8	5010874	5011011	5011024	5011042	5010810	5011067	5011080	
8.2		5011012	5011026	5011043	5010038	5011068	5011081	

Resistors 5% 1/4 W

	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0	5010592	5010506	5010065	5010040	5010059	5010049	5010054	5010638
1.2		5010595	5010128	5010153	5010046	5010047	5010665	
1.5	5011348	5010468	5010057	5010247	5010053	5010063	5010093	
1.8		5010822	5010362	5010066	5010135	5010072	5010791	
2.2	5010682	5010448	5010092	5010064	5010079	5010120	5010245	
2.7	5010925	5010403	5010000	5010298	5010141	5010083	5010431	
3.3		5010253	5010044	5010076	5010075	5010117	5010848	
3.9	5011377	5010622	5010070	5010069	5010060	5010073	5010714	
4.7	5010888	5010411	5010058	5010048	5010045	5010077	5011513	
5.6	5010706	5010151	5010067	5010041	5010061	5010071	5010658	
6.8	5010904	5010039	5010144	5010052	5010062	5010074		
8.2	5010880	5010056	5010068	5010154	5010091	5010505		

Resistors 5% 1/8 W

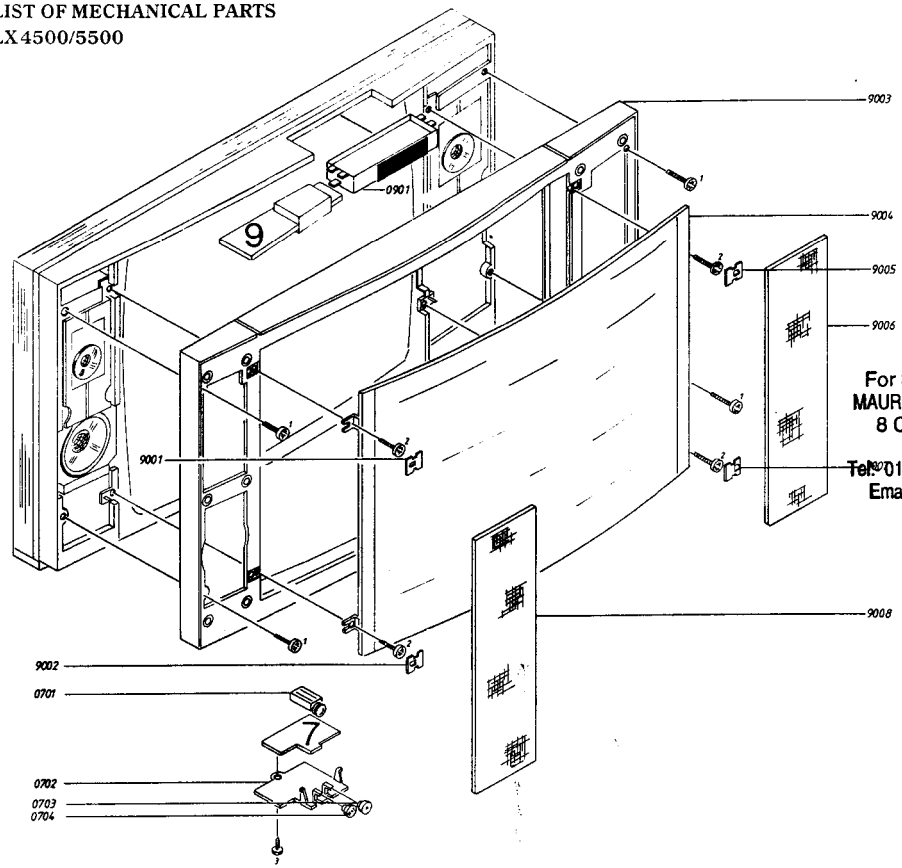
	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0		5011464	5011357	5010816	5010935	5011440	5011459	5020875
1.2		5011351	5011084	5011442	5011338	5011341	5011175	
1.5		5011463	5011443	5011178	5011364	5011398	5011460	
1.8			5011350	5011361	5011344	5011468		
2.2	5011032	5011376	5010886	5011353	5010833	5011369	5011342	
2.7		5011471	5011355	5011362	5011366	5011370	5011478	
3.3		5011347	5011337	5010827	5011346	5011371	5011462	
3.9		5011438	5011817	5011157	5011457	5011372	5020876	
4.7	5011363	5011038	5011441	5011363	5010937	5011343	5011611	
5.6		5011412	5011358	5010885	5011166	5011340		
6.8		5011356	5011336	5010839	5011367	5011458		
8.2		5011466	5011354	5011339	5011368	5011373		

Resistors SMD 2% 1/8 W
SMD 5% 1/8 W

	5%	2%	2%	2%	2%	2%	5%	5%
	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0	5011623	5011647	5011218	5011227	5011241	5011256	5011267	5011730
1.1	5011624	5011648	5011669	5011681	5011689	5011694	5011707	
1.2	5011625	5011649	5011219	5011682	5011490	5011257	5011708	
1.3	5011626	5011650	5011670	5011683	5011242	5011258	5011709	
1.5	5011627	5011651	5011220	5011228	5011243	5011259	5011710	
1.6	5011628	5011652	5011671	5011684	5011690	5011695	5011711	
1.8	5011629	5011653	5011672	5011229	5011244	5011260	5011712	
2.0	5011630	5011654	5011673	5011685	5011691	5011696	5011713	
2.2	5011216	5011655	5011674	5011230	5011245	5011261	5011714	
2.4	5011634	5011656	5011675	5011686	5011246	5011697	5011715	
2.7	5011635	5011657	5011497	5011231	5011247	5011262	5011716	
3.0	5011731	5011658	5011499	5011500	5011692	5011698	5011717	
3.3	5011217	5011659	5011676	5011232	5011248	5011263	5011718	
3.6	5011636	5011660	5011677	5011687	5011249	5011264	5011719	
3.9	5011637	5011661	5011221	5011233	5011491	5011699	5011720	
4.3	5011638	5011662	5011498	5011688	5011492	5011700	5011721	
4.7	5011639	5011269	5011222	5011234	5011250	5011265	5011722	
5.1	5011640	5011663	5011678	5011235	5011493	5011701	5011723	
5.6	5011641	5011664	5011223	5011236	5011251	5011702	5011724	
6.2	5011642	5011665	5011224	5011237	5011693	5011703	5011725	
6.8	5011643	5011666	5011225	5011238	5011252	5011704	5011726	
7.5	5011644	5011667	5011679	5011239	5011253	5011705	5011727	
8.2	5011645	5011270	5011226	5011240	5011254	5011266	5011728	
9.1	5011646	5011668	5011680	5011489	5011255	5011706	5011729	

(Glue cots, approx. 200, part no. 3181932).

LIST OF MECHANICAL PARTS
LX4500/5500



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Front frame for Beovision LX5500

9001	3164570	Cap	9006	3450898	Loudspeaker panel, right
9002	3164570	Cap			
9003	3414146	Front frame	9007	3164570	Cap
9004	3450890	Glassplate	9008	3450897	Loudspeaker panel, left
	3950043	Rubber string			
9005	3164570	Cap			

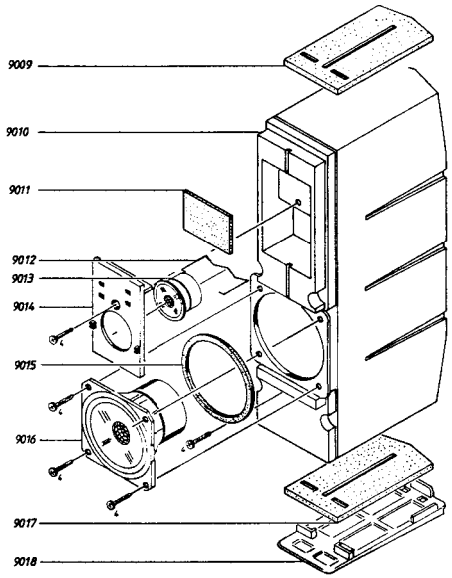
07 modul	8007068	Headphone	0704	2776033	Button, Pstep
0701	7210386	Jack plug		6275990	Mains lead
0702	3131324	Cap		6275989	Mains lead, AUS
0703	2776032	Button for mains switch			

09 modul	8007042	IR receiver and transmitter
	3302467	Shield, top
	3302468	Shield, bottom
0901	3131325	House for IR

Front frame for Beovision LX4500

9003	3414136	Front frame	9006	3450894	Loudspeaker panel, right
9004	3450888	Glass plate			
	3950044	Rubber string	9008	3450893	Loudspeaker panel, left

Other parts like front frame for Beovision LX5500



Loudspeaker cabinet for Beovision LX5500

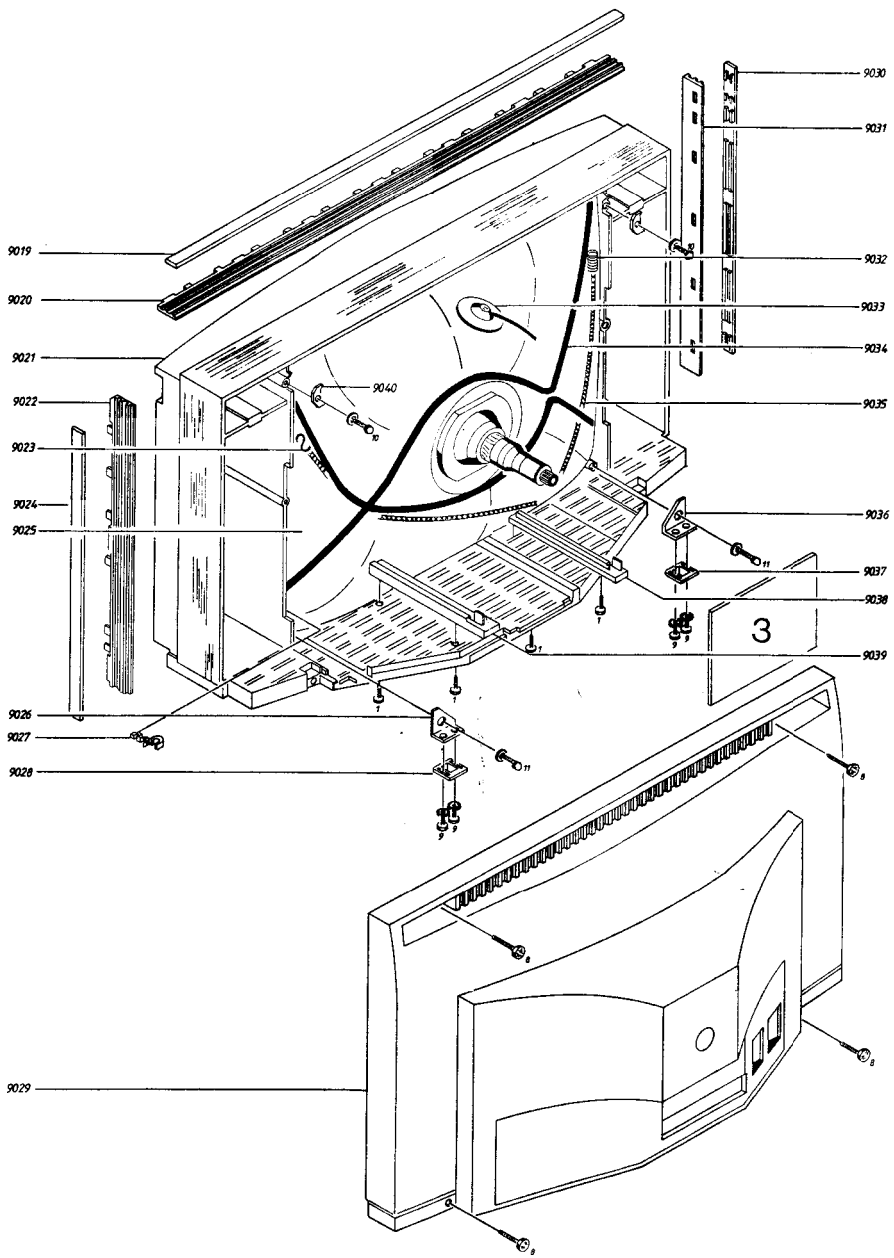
9009	3152614	Pressure pad	9013	8480204	Treble speaker
9010	3430373	Loudspeaker cabinet, right	9014	3152433	Loudspeaker suspension
	3430374	Loudspeaker cabinet, left	9015	3340078	Gasket
			9016	8480214	Bass speaker
9011	3907051	Pressure pad	9017	3152614	Pressure pad
9012	2819207	Spring	9018	3035054	Plastic foot

Loudspeaker cabinet for Beovision LX4500

9009	3152615	Pressure pad	9015	3340047	Gasket
9010	3430376	Loudspeaker cabinet, right	9016	8480164	Bass speaker
			9017	3152615	Pressure pad
	3430377	Loudspeaker cabinet, left			

Other parts like loudspeaker cabinet for Beovision LX5500

Cabinet



4-2

Cabinet for Beovision LX5500

9019	2569205	Profile, top	9028	2576200	Spacer
	2569207	Profile, top, blank	9029	3414336	Rear cover
9020	3152415	Holder	9030	2569232	Profile, side
9021	3414603	Cabinet, rosewood		2569220	Profile, side, blank
	3414325	Cabinet, white	9031	3152438	Holder, left
	3414326	Cabinet, black	9032	2810189	Spring
	3414329	Cabinet, grey	9033	6270474	EHT cable
9022	3152539	Holder, right	9034	8022222	Degaussing coil
9023	2510119	Clamp	9035	7510041	Ground current
9024	2569232	Profile, side	9036	3152432	Holder
	2569220	Profile, side, blank	9037	2576200	Spacer
9025	8200065	Picture tube 28"	9038	3152678	Rail, right
9026	3152446	Holder	9039	3152677	Rail, left
9027	3152778	Holder	9040	2576170	Spacer

03 modul	8007041	Video Output

Cabinet for Beovision LX4500

9019	2569206	Profile, top		2569221	Profile, side blank
	2569208	Profile, top, blank	9025	8200064	Picture tube 25«
9020	3152451	Holder	9029	3414436	Rear cover
9021	3414303	Cabinet, rosewood	9030	2569233	Profile, side
	3414425	Cabinet, white		2569221	Profile, side, blank
	3414426	Cabinet, black	9031	3152452	Holder
	3414429	Cabinet, grey	9034	8022249	Degaussing coil
9022	3152538	Holder	9035	7510040	Ground current
9024	2569233	Profile, side			

Other parts like cabinet for Beovision LX5500

Survey of screws and washers

1	2019018	Screw 4,0x16	7	2013123	Screw 3x10
2	2021006	Screw 5x20	8	2021010	Screw 5x25
3	2015066	Screw 3,5x16	9	2044042	Screw 5x20
4	2015133	Screw 3,5x16	10	2044048	Screw 5x25
5	2013118	Screw 3x8	11	2044047	Screw 5x15
6	2013208	Screw 2,9x9,5			

Parts not shown

3397558	Foam packing, LX5500	3503571	Setting up guide, E
3397593	Foam packing, LX4500	3503572	Setting up guide, I
3392082	Outer carton LX5500	3501091	Users guide, DK
3392083	Outer carton, LX4500	3501092	Users guide, S
3946109	Moulding, set, LX4500	3501093	Users guide, SF
3946110	Moulding, set, LX5500	3501094	Users guide, GB
3503558	Setting up guide, DK	3501095	Users guide, D
3503559	Setting up guide, S	3501096	Users guide, NL
3503556	Setting up guide, SF	3501097	Users guide, F
3503557	Setting up guide, GB	3501102	Users guide for Videosystem, F
3503558	Setting up guide, D		
3503559	Setting up guide, NL	3501098	Users guide, E
3503570	Setting up guide, F	3501099	Users guide, I
3503573	Setting up guide for Videosystem, F		

LX5500, White Line

9003	3414215	Front frame	9024	2569243	Profile, side
9019	2569209	Profile, top	9029	3414845	Rear cover
9020	3152750	Holder, top	9030	2569243	Profile, side
9021	3414149	Cabinet	9031	3152752	Holder, right
9022	3152751	Holder, left			

Other parts like cabinet for Beovision LX5500

LX4500, White Line

9003	3414135	Front frame	9024	2569242	Profile, side
9019	2569210	Profile, top	9029	3414945	Rear cover
9020	3152753	Holder, top	9030	2569242	Profile, side
9021	3414139	Cabinet	9031	3152755	Holder, right
9022	3152754	Holder, left			

Other parts like cabinet for Beovision LX5500

LX5500, Grey Line

9003	3414649	Front frame	9021	3414449	Cabinet
9006	3451138	Loudspeaker panel, right	9022	3152766	Holder, left
			9024	2569258	Profile, side
9008	3451139	Loudspeaker panel, left	9029	3414336	Rear cover
			9030	2569258	Profile, side
9019	2569259	Profile, top	9031	3152767	Holder, right
9020	3152768	Holder, top			

Other parts like cabinet for Beovision LX5500

LX4500, Grey Line

9003	3414549	Front frame	9021	3414349	Cabinet
9006	3451136	Loudspeaker panel, right	9022	3152769	Holder, left
			9024	2569248	Profile, side
9008	3451137	Loudspeaker panel, left	9029	3414436	Rear cover
			9030	2569248	Profile, side
9019	2569249	Profile, top	9031	3152770	Holder, right
9020	3152771	Holder, top			

Other parts like cabinet for Beovision LX5500

L5500

9003	3414176	Front frame	9019	2569211	Profile, top
9010	3430373	Loudspeaker cabinet, right	9021	3414603	Cabinet, rosewood
				3414601	Cabinet, teak
	3430374	Loudspeaker cabinet, left		3414613	Cabinet, grey metal
			9024	2568935	Profile, side
9016	8480215	Bass speaker	9030	2568935	Profile, side

Other parts like cabinet for Beovision LX5500

L4500

9003	3414196	Front frame	9019	2569212	Profile, top
9010	3430376	Loudspeaker cabinet, right	9021	3414303	Cabinet, rosewood
				3414301	Cabinet, teak
	3430377	Loudspeaker cabinet, left		3414313	Cabinet, grey metal
			9024	2568956	Profile, side
9016	8480205	Bass speaker	9030	2568956	Profile, side

Other parts like cabinet for Beovision LX5500

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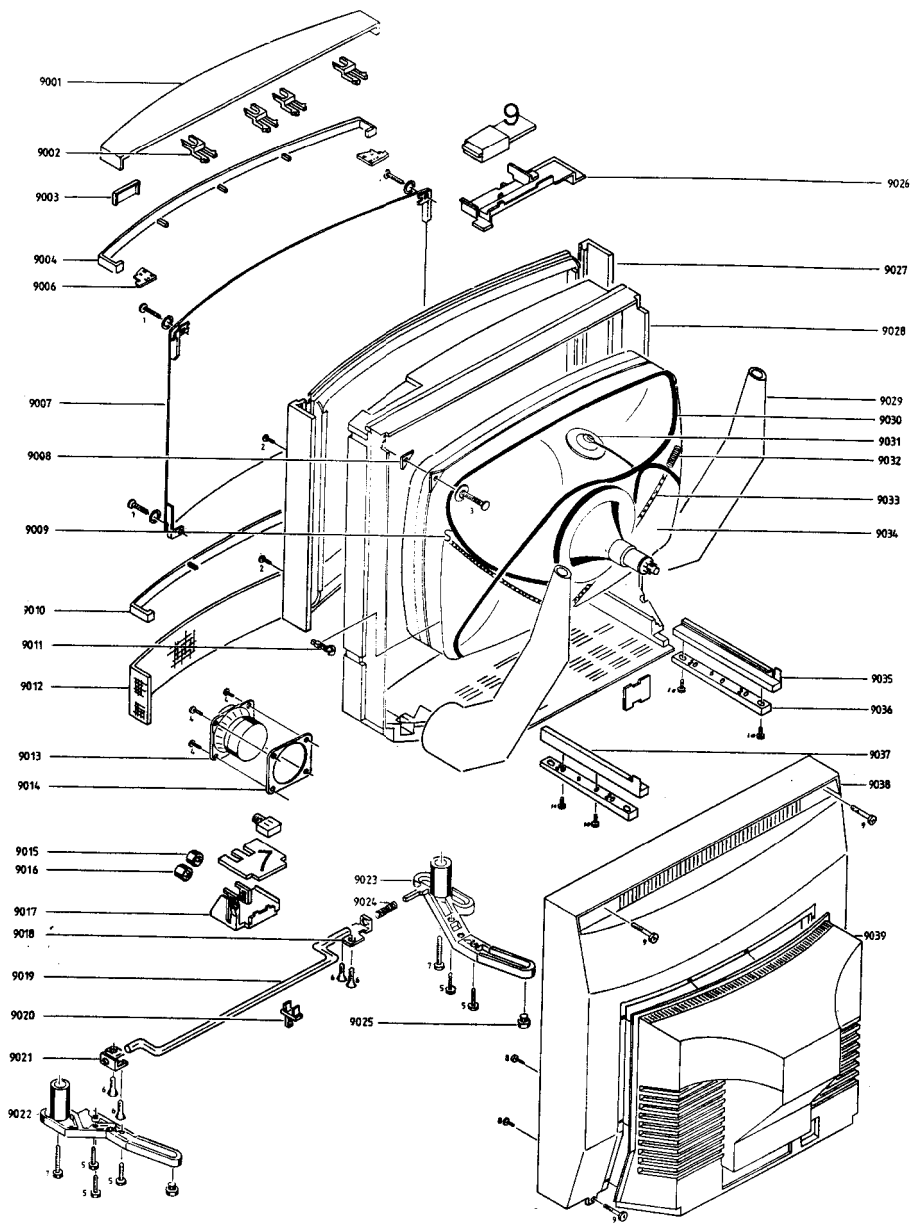
4-3

Bang & Olufsen

LIST OF MECHANICAL PARTS
MX5500



Cabinet MX5500

9001	3450691	Lid	9026	3131329	Holder
9002	2391070	Hinge	9027	3320106	Front frame w/rubber string
9003	3322092	Window		3950029	Rubber string
9004	3450701	Cap	9028	3320131	Chassis w/foot
9006	3164687	Holder		3946083	Tightning, side
9007	3451039	Contrast screen		3946084	Tightning, top/bottom
9008	2640053	Spacer		3103287	Foot
9009	2510119	Clamp		6275990	Mains lead
9010	3450925	Cap		6275989	Mains lead AUS
9011	3152778	Holder	9029	3132103	Loudspeaker damping tube
9012	3450709	Loudspeaker panel	9030	8022222	Degaussing coil
9013	8480164	Loudspeaker	9031	6270474	EHT cable
9014	3340074	Gasket	9032	2810189	Tension spring
9015	2776033	Press button - STEP	9033	7510041	Ground current
9016	2776032	Press button - ●	9034	8200065	Picture tube
9017	3152674	Holder	9035	3152677	Guide rail, left
9018	3031175	Fitting f/tilting foot left	9036	2576242	Spacer f/rail
9019	3103238	Tilting foot	9037	3152678	Guide rail, right
9020	3152566	Holder f/tilting foot	9038	3414244	Back cover, red
9021	3031129	Fitting f/tilting foot right		3414245	Back cover, white
9022	3031157	Fitting f/bottom right		3414246	Back cover, black
9023	3031234	Fitting f/bottom left		3414248	Back cover, blue
9024	2819237	Spring		3414249	Back cover, grey
9025	3035032	Rubber foot	9039	3430484	Back cover, small

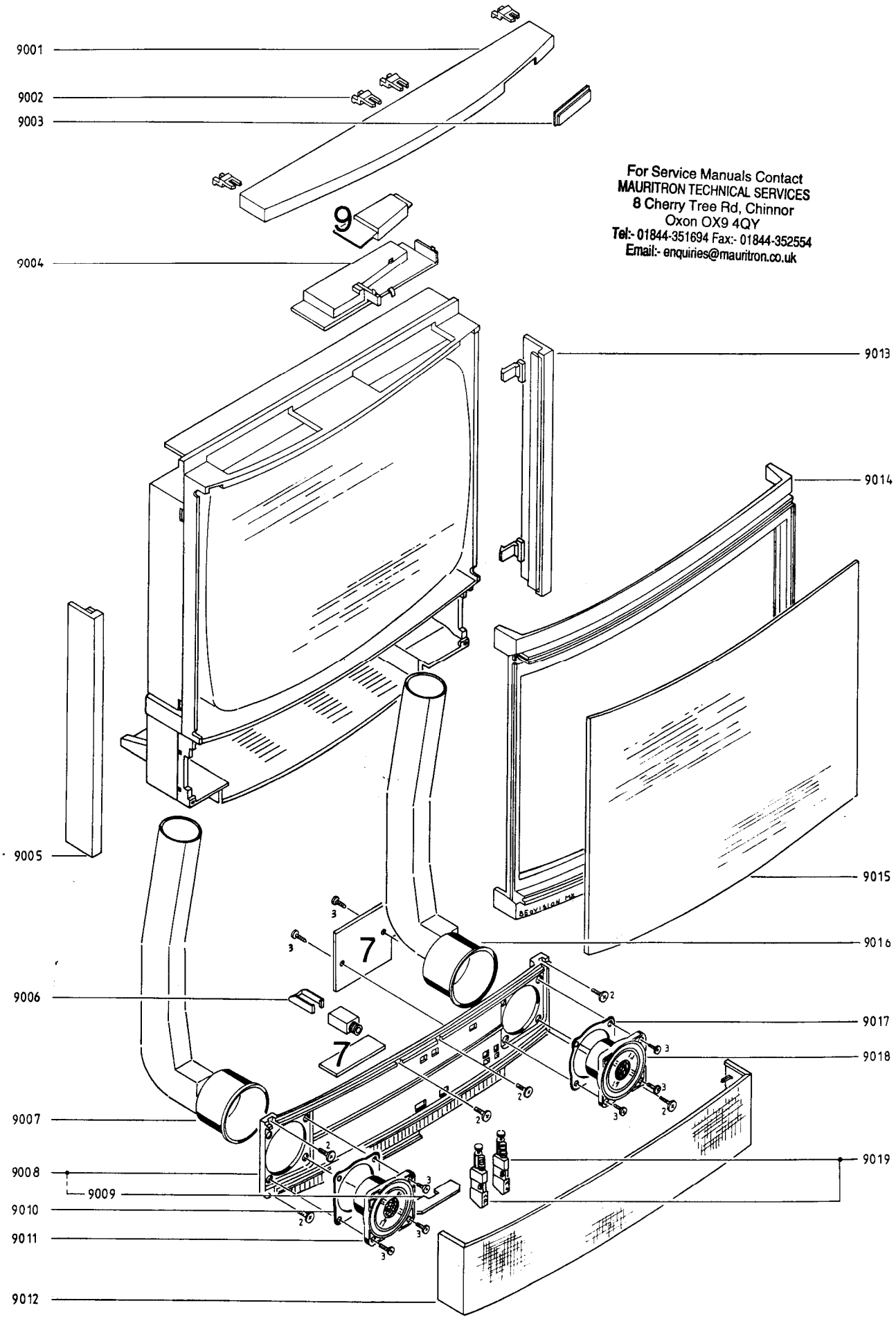
07modul	8007211	Headphone
	7210386	Jack plug

Survey of screws and washers

1	2015129	Screw 3.5 x 12 w/washer	5	2019018	Screw 4 x 16
2	2013123	Screw 3 x 10	6	2019015	Screw 4 x 14
3	2044048	Screw 5 x 25 w/washer	7	2021003	Screw 5 x 35
4	2013106	Screw 2.9 x 16	8	2019017	Screw 4 x 10
			9	2021010	Screw 5 x 25/11
			10	2019018	Screw 4 x 16

Bang&Olufsen

LIST OF MECHANICAL PARTS
MX3500



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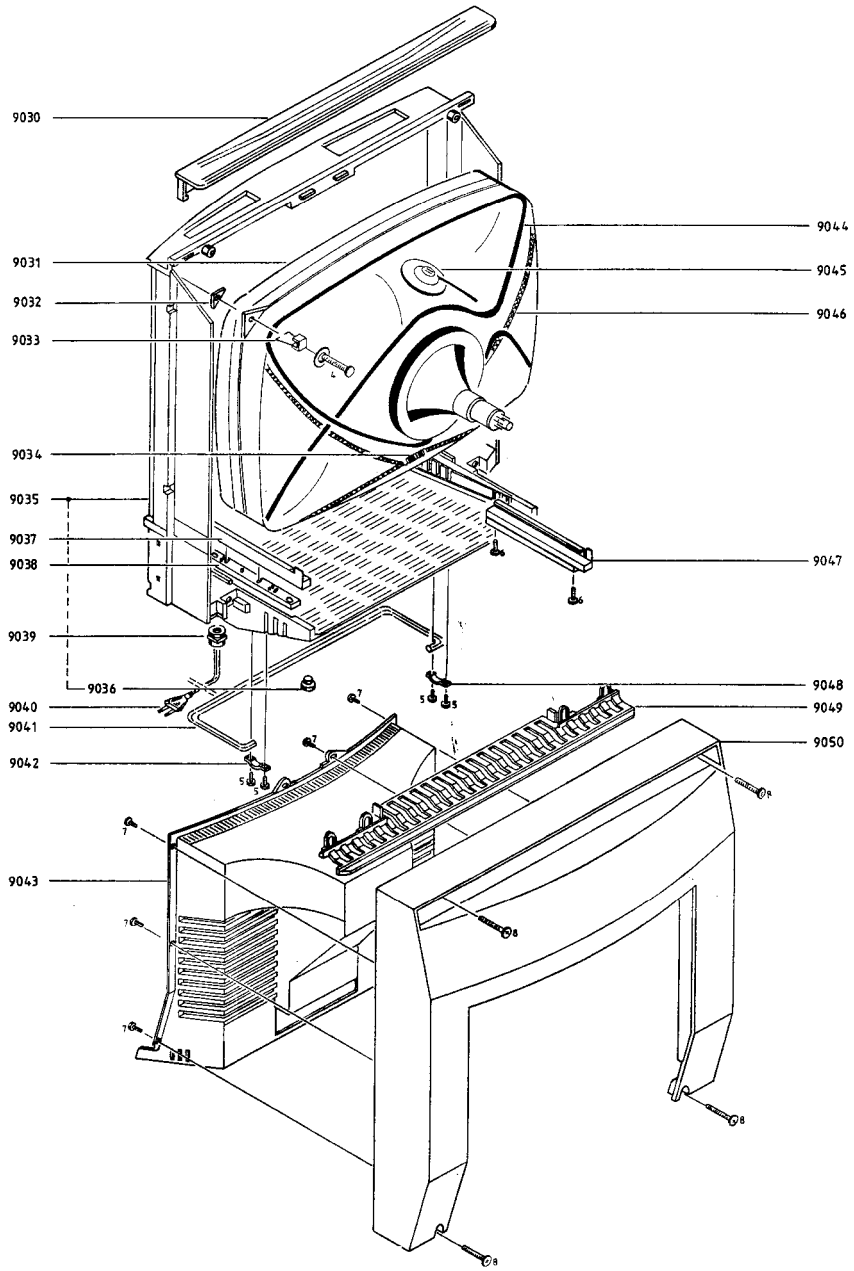

Cabinet
MX3500

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9001	3164644	Lid	9032	2640053	Spacer
9002	2391070	Hinge	9033	2514066	Clamp
9003	3322092	Window	9034	2810189	Tension spring
9004	3131329	Holder	9035	3320133	Chassis
9005	3470193	Side plate		3946094	Tightening rail
	3950028	Rubber string	9036	3035053	Rubber foot
9006	2510160	Clamp	9037	3152678	Guide rail, right
9007	3132113	Loudspeaker damping tube,left	9038	2576242	Spacer f/guide rail
			9039	2641119	Bushing f/mains cable
9008	3440108	Loudspeaker baffle w/foot	9040	6271102	Mains lead w/euro plug
9009	3103286	Foot		6270297	Mains lead AUS
9010	3340074	Gasket	9041	3103261	Tilting foot
9011	8480164	Loudspeaker	9042	2641114	Fitting f/tilting foot
9012	3450704	Loudspeaker panel	9043	3430483	Back cover, small
9013	3470193	Side plate	9044	8022325	Degaussing coil
	3950028	Rubber string	9045	6270474	EHT cable
9014	3320135	Front frame	9046	7510035	Ground current
	3950020	Rubber string	9047	3152677	Guide rail, left
9015	3451100	Contrast screen	9048	2641114	Fitting f/tilting foot
9016	3132114	Loudspeaker damping tube,right	9049	3444182	Grill
			9050	3414164	Back cover, reed
9017	3340074	Gasket		3414165	Back cover, white
9018	8480164	Loudspeaker		3414166	Back cover, black
9019	2776154	Press buttons, complete		3414298	Back cover, blue
				3414169	Back cover, grey
9030	2530537	Carrying handle			
9031	8200063	Picture tube			

07modul	8007213	Push button panel
	8007212	Headphone
	7210386	Jack plug

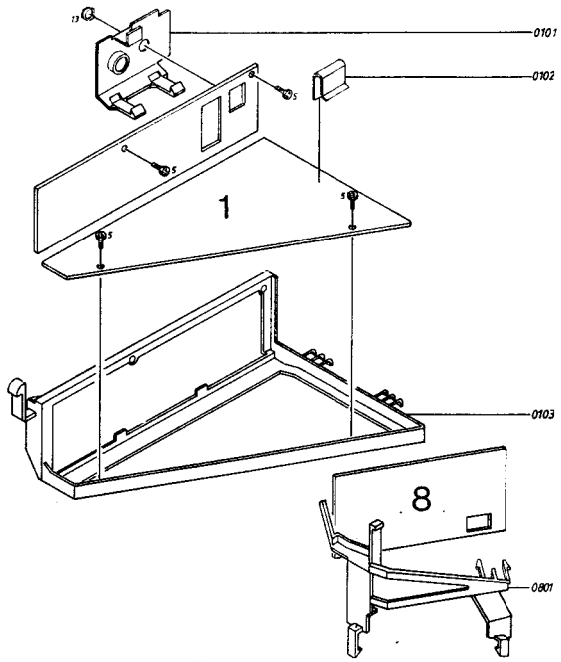
Survey of screws

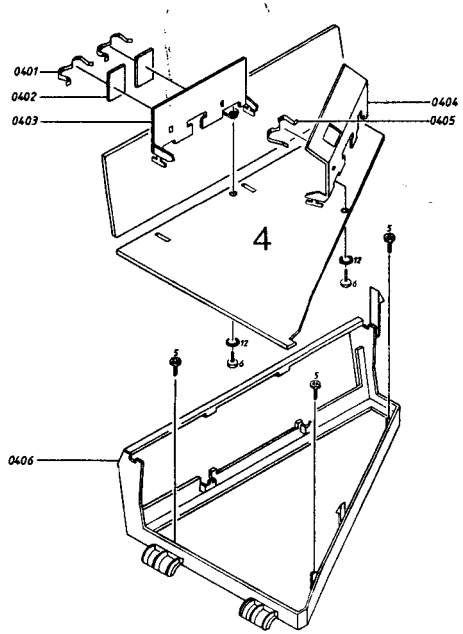
2	2019009	Screw 4 x 12
3	2013123	Screw 3 x 10
4	2044048	Screw 5 x 25 w/washer
5	2019009	Screw 4 x 12
6	2019018	Screw 4 x 16
7	2019010	Screw 4 x 8
8	2021009	Screw 5 x 25

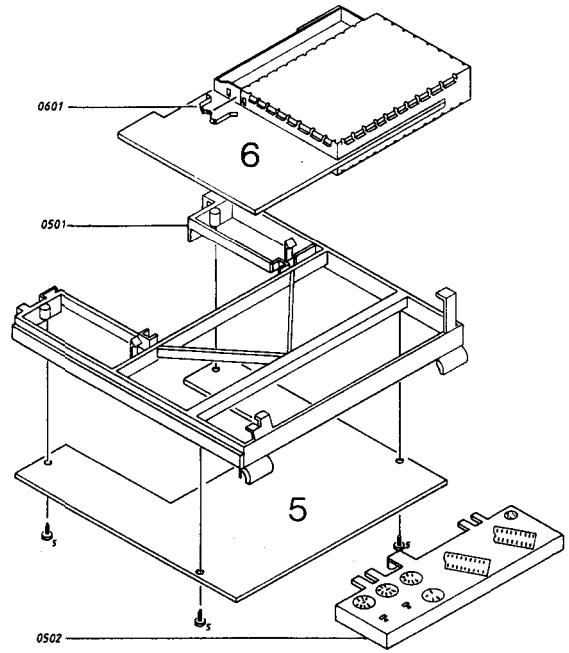
Parts not shown

1301166	Back cover f/MX3500 with Beosat LM	3503594	Setting up guide f/MX3500, S
		3503584	Setting up guide f/MX5500, S
3397557	Foam insert f/MX3500	3503595	Setting up guide f/MX3500, SF
3917104	Foam foil f/MX3500	3503585	Setting up guide f/MX5500, SF
3917105	Foam foil f/MX5500	3503596	Setting up guide f/MX3500, GB
3397620	Foam packing f/MX3500	3503586	Setting up guide f/MX5500, GB
3397637	Foam packing f/MX5500	3503597	Setting up guide f/MX3500, D
3391983	Outer carton f/MX3500	3503587	Setting up guide f/MX5500, D
3392015	Outer carton f/MX5500	3503598	Setting up guide f/MX3500, NL
3501103	Users guide, DK	3503588	Setting up guide f/MX5500, NL
3501104	Users guide, S	3503599	Setting up guide f/MX3500, F
3501105	Users guide, SF	3503589	Setting up guide f/MX5500, F
3501106	Users guide, GB	3503600	Setting up guide f/MX3500, I
3501107	Users guide, D	3503590	Setting up guide f/MX5500, I
3501108	Users guide, NL	3503601	Setting up guide f/MX3500, E
3501109	Users guide, F	3503591	Setting up guide f/MX5500, E
3501110	Users guide, I	3503602	Setting up guide for Video-system f/MX3500, F
3501111	Users guide, E		
3501112	Users guide for Videosystem, F	3503592	Setting up guide for Videosystem f/MX5500, F
3503593	Setting up guide f/MX3500, DK		
3503583	Setting up guide f/MX5500, DK		

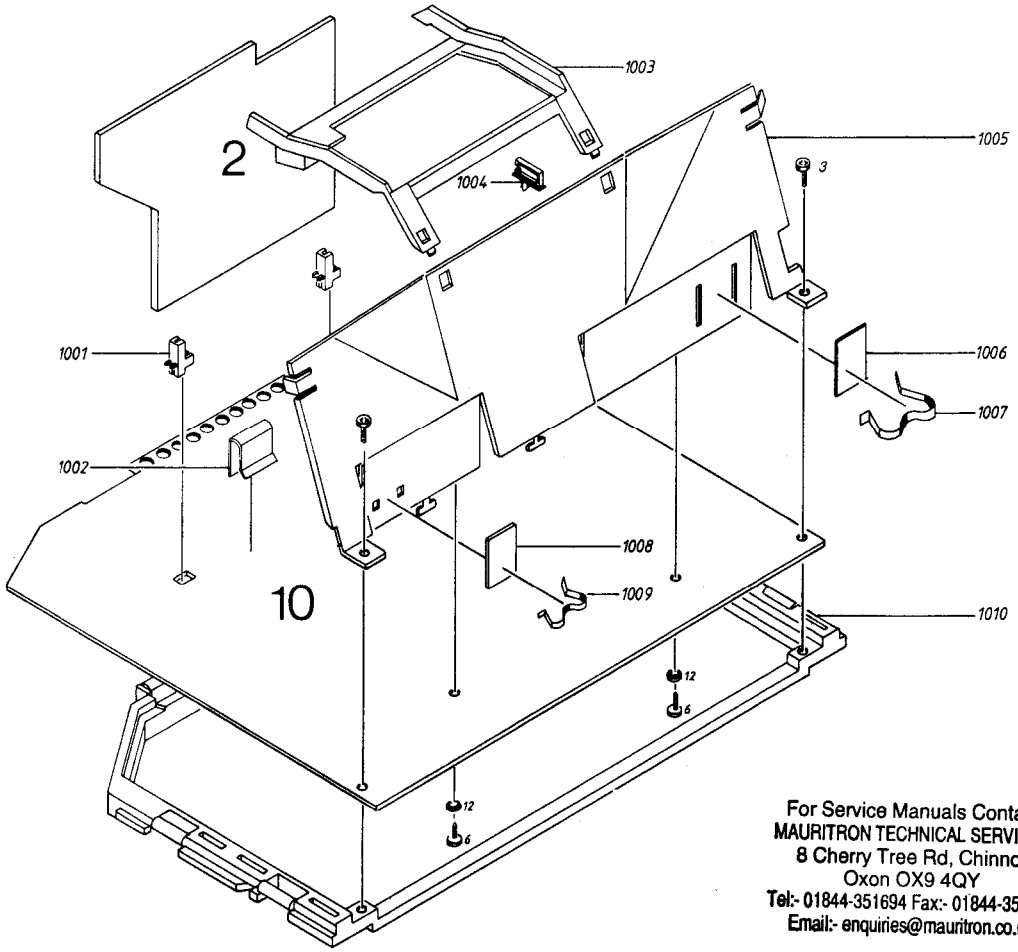
PARTS FOR MODULES







01	modul	8007048	**MF B/GL**
		8007052	MF I
0101		3451045	Front plate
0102		3358259	Heat sink
0103		3152673	Chassis
02	modul	8007050	PAL/SECAM/NTSC decoder
04	modul	8007034	Switch mode power supply
0401		2816260	Spring clip
0402		3170001	Mica washer
0403		3358263	Heat sink
0404		3358254	Heat sink
0405		2816238	Leaf spring
0406		3152672	Chassis
05	modul	8007040	Video and sound switching
0501		3152671	Chassis
0502		3168760	Aerial panel
06	modul	8007025	Teletext and uP system
0601		2816195	Spring clip
		3302465	Shield, top
		3302466	Shield, bottom
08	modul	8007066	Nicam decoder
		8007071	Nicam I decoder
0801		3152676	Chassis



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10 modul	8007134	Deflection and Still display
1001	3152612	Holder
1002	3358267	Heat sink
1003	3152670	Chassis
1004	3152561	Cable holder
1005	3358264	Heat sink
1006	3170169	Mica washer
1007	2816154	Spring clip
1008	3170001	Mica washer
1009	2816195	Spring clip
1010	3152675	Chassis

Survey of screws

3	2013123	Screw 3x10
5	2013118	Screw 3x8
6	2013208	Screw 2,9x9,5
12	2625002	Washer
13	2380143	Nut

Survey of wire bundles

1P1-10P16	6276014		5P57-10P29	6276036	
1P3-5P55	6276015		5P56-10P30	6276016	
1P4-5P54	6276015		5P59-6P70	6276018	
1P2-10P15	6276017		6P72-10P26	6276038	
1P8-8P801	6276127		6P71-10P27	6276039	
1P5-1P6	6276020	*only in products without NICAM*	7P87-10P23	6276041	
			7P88-10P22	6276040	
1P7-8P803	6276037		9P91-10P21	6276021	
2P39-5P51/52	6276016		10P20-deflection	6276042	
2P38-5P53	6276022		10P20-deflection	6276007	*Only MX5500*
2P34-3P43	6276023		8P20-1P6	6276020	
2P37-10P12	6276024		8P804-10P14	6276128	
2P36-10P13	6276025		Focuscable	6270473	
2P40-6P65	6276026		Holder	3152721	
3P44-10P17	6276027		EHT-cable	6270474	
4P79-6P73	6276028		Cable-loudspeaker	6100094	
4P81-10P25	6276029		Cable-loudspeaker	6100214	*Only MX3500*
4P83-Net	6275990		Cable-loudspeaker	6100142	*Only MX5500*
4P82-10P24	6276030		Wire bundle for power failure	6276361	
5P63-6P66	6276031		Main wire bundle	6275986	
5P60-6P69	6276032		10P18-19-P1	6276208	*Only MX5500*
5P62-6P67	6276033		7P89-10P20	6276225	*Only MX3500*
5P61-6P68	6276034				
5P58-10P28	6276035				

Video stand, 1410613, LX55/4500 1410714, MX5500

9111	3124124	Mounting plate, L/LX45/5500	9115	3454689	Frame, bottom piece
			9116	3103298	Cover f/bottom
9112	3456188	Spacer	9117	3451012	Profile
9113	3458498	Frame, top – L/LX45/5500, MX5500		3035063	Rubber foot
			9118	3124117	Mounting plate, MX5500
9114	2569039	Frame intermediate piece	9119	8053314	Revolving unit
			9120	3151279	Shelf, VX
	3164831	Cover f. intermediate			

Survey of Screws

3	2046031	Screw 6x25
4	2044058	Screw 5x10
5	2380130	Nut
6	2046023	Screw 6x8

Parts not shown

3390407	Bag with parts, L/LX45/5500
3390412	Bag with parts, MX5500
3397726	Foam packing
3392152	Packing
3504412	Assembling guide, L/LX45/5500
3504418	Assembling guide, MX5500

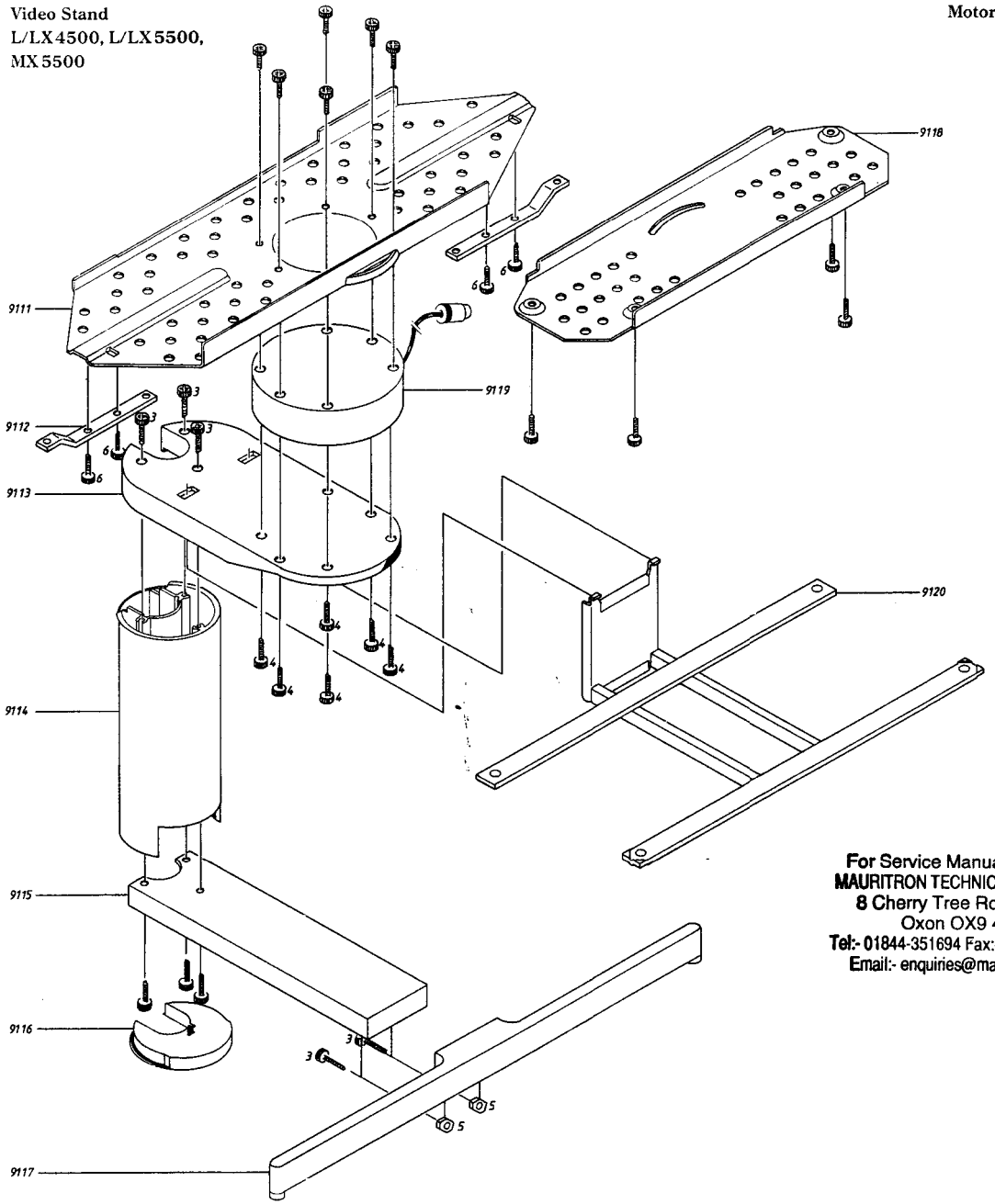
Motorized Base, 1410111, LX45/5500 1410211, MX5500 1410511, MX3500

9121	3124124	Mounting plate, L/LX45/5500	9123	2046023	Screw 6x8
			9124	3458735	Topplate
			9125	8053314	Revolving unit
	3124117	Mounting plate, MX5500	9126	2752026	Bottom plate
				3103285	Plastic foot
	3124122	Mounting plate, MX3500	9127	2044032	Screw 5x10
9122	3456185	Spacer			

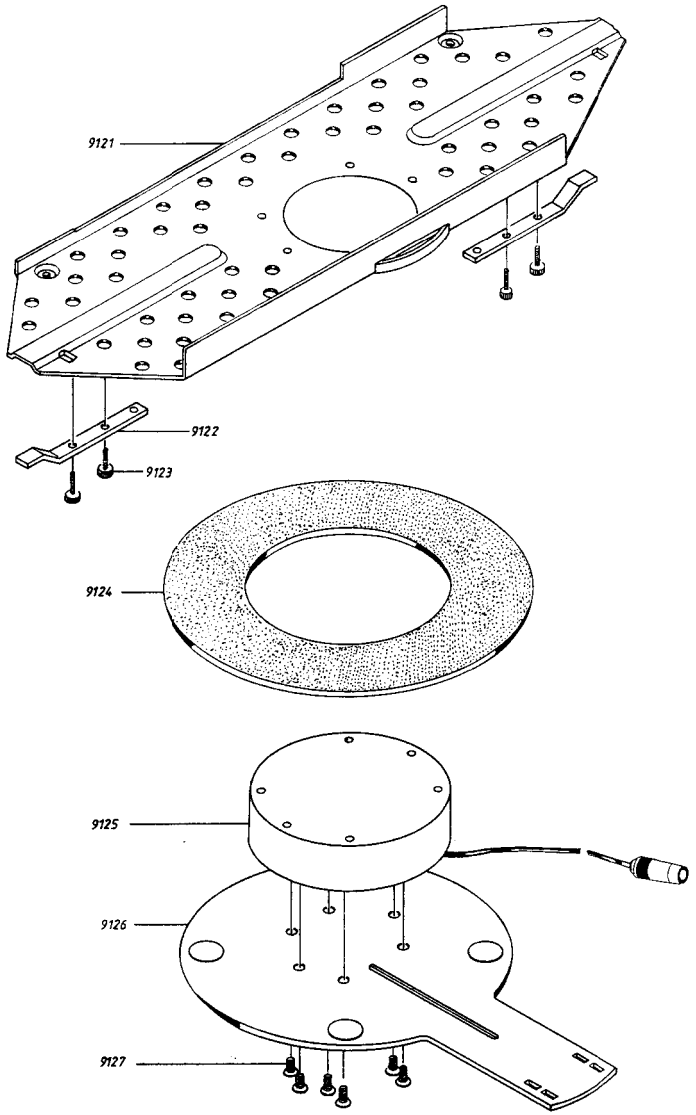
Parts not shown

3390404	Bag with parts, L/LX45/5500
3390405	Bag with parts, MX5500
3390406	Bag with parts, MX3500
3392150	Packing, L/LX45/5500
3392151	Packing, MX35/5500
3397724	Foam packing, L/LX45/5500
3397725	Foam packing, MX35/5500
3504413	Assembling guide, L/LX45/5500
3504419	Assembling guide, MX5500
3504420	Assembling guide, MX3500

Video Stand
L/LX4500, L/LX5500,
MX5500



Motorized Base



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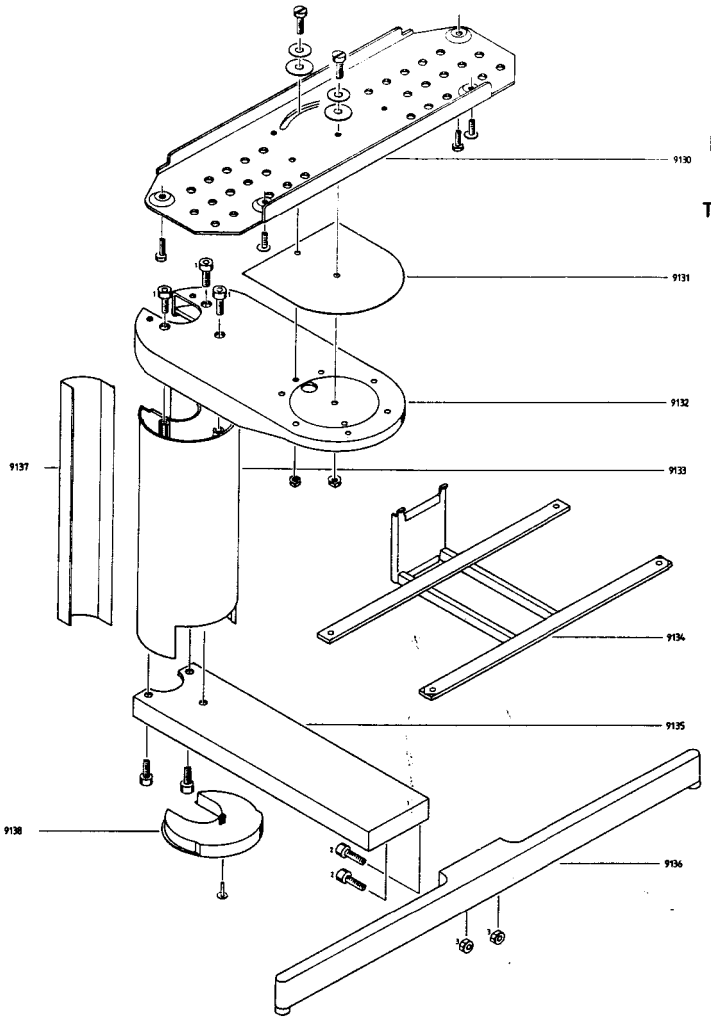
4-11

TV/Video Stand
MX 5500



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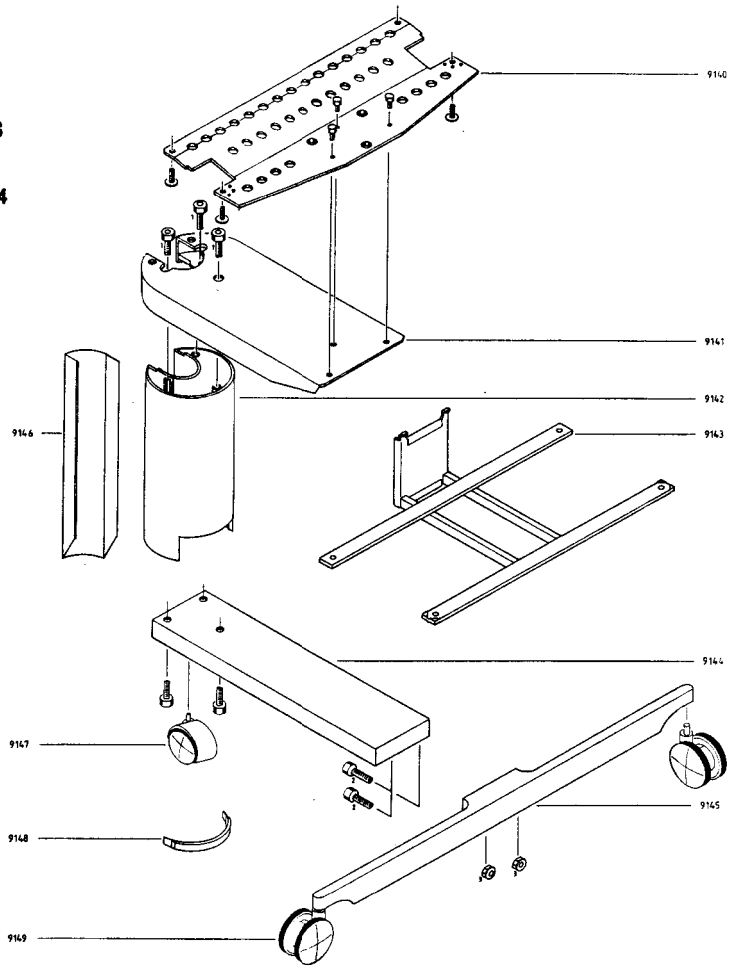
Video Stand, 1410913, MX 5500	9130	3124117	Mounting plate	9135	3454689	Frame, bottom
Shelf 1411366, VX 5500	9131	3915044	Gasket	9136	3451012	Profile
	9132	3458498	Frame, top		3035063	Rubber foot
	9133	2569039	Frame intermediate piece	9137	3164831	Cover f/interm.
				9138	3103298	Cover f/bottom
	9134	3151279	Shelf, VX			

Survey of Screws	1	2046017	Screw 6x16 mm
	2	2046031	Screw 6x25 mm
	3	2380130	Nut

Parts not shown	3390415	Bag w/parts	3397726	Foam packing
	3392152	Packing	3504414	Assembling guide

4-11

TV/Video Stand
MX 3500

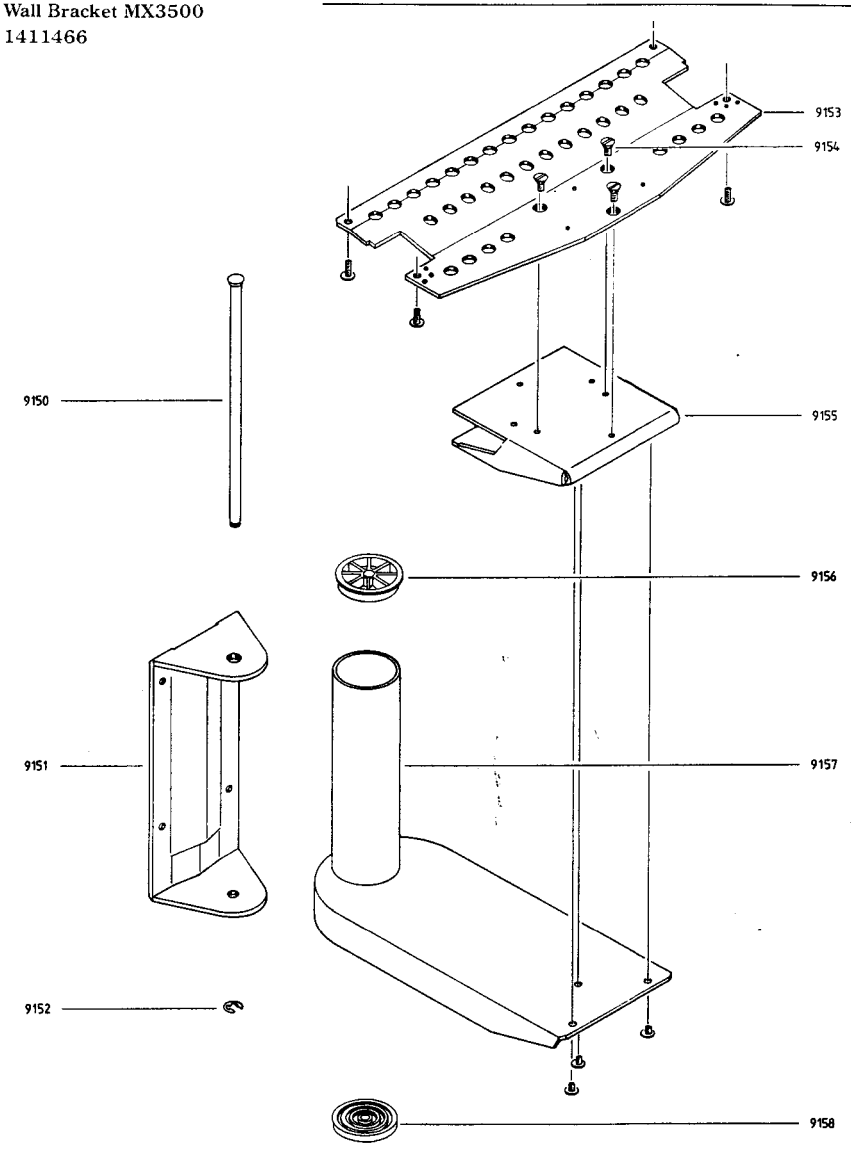


Video Stand, 1411013, MX 3500	9140	3124122	Mounting plate	9145	3451079	Profile
Shelf 1411366, VX 5000	9141	3458756	Frame, top	9146	3164857	Cover f/interm.
	9142	2569241	Frame intermediate piece	9147	3032022	Wheel
				9148	3456187	Cover f/bottom
	9143	3151279	Shelf, VX	9149	3032019	Wheel
	9144	3454699	Frame, bottom			

Survey of Screws	1	2046017	Screw 6x16 mm
	2	2044060	Screw 5x25 mmm
	3	2380141	Nut

Parts not shown	3390418	Bag w/parts
	3392169	Packing
	3397748	Foam packing
	3504415	Assembling guide

Wall Bracket MX3500
1411466

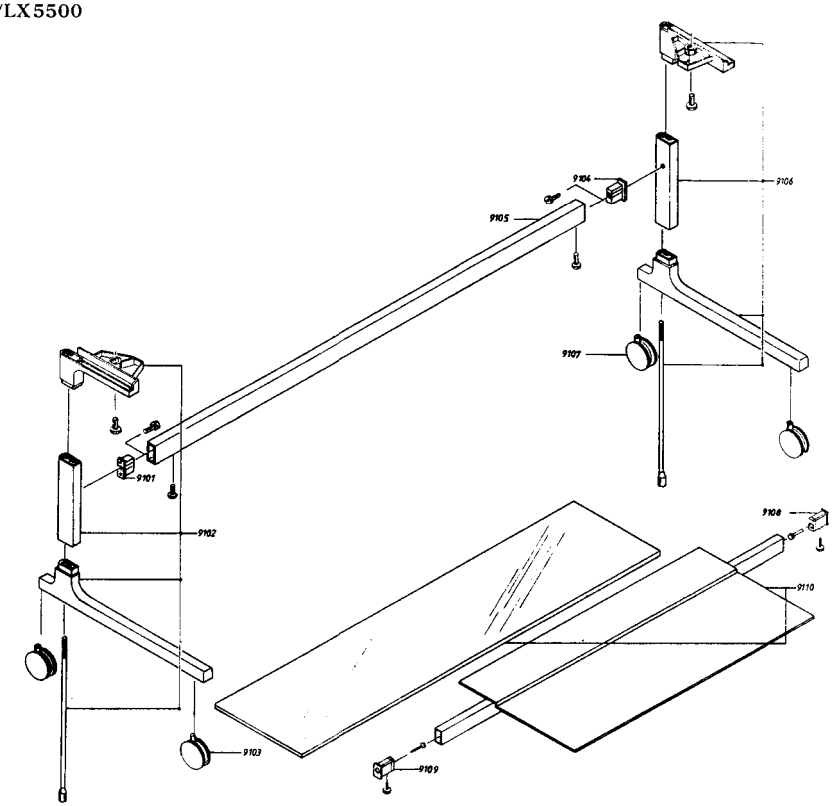


9150	2831073	Shaft	9155	3451096	Front plate
9151	3031315	Fittings	9156	2905129	Slide bearing, Top
9152	2390108	Snap ring	9157	3151283	Holder
9153	3124122	Mounting plate	9158	2905130	Slide bearing, Buttom
9154	2044057	Screw 5x8			

Parts not shown

3390416	Bag w/parts	3397749	Foampacking
3392173	Packing	3504430	Assembling guide

TV-Stand L/LX4500,
L/LX5500



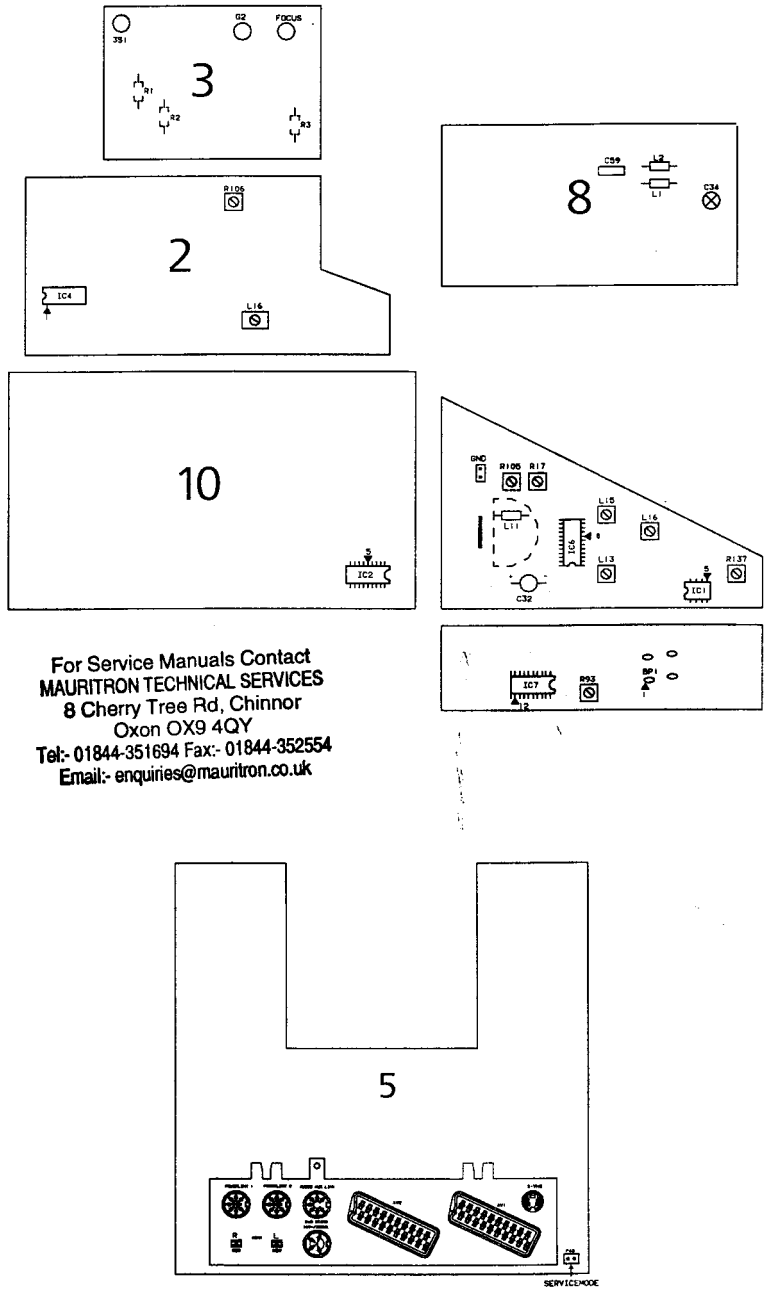
TV-stand 1410865, White
1410866, Black
Shelf LX5500 1411113, Grey
Shelf LX4500 1411213, Grey

9101	3152531	Holder		2576199	Travers L/LX4500, white
9102	3103301	Post, left, black			
	3103307	Post, left, white	9106	3103300	Post, right, black
9103	3032019	Wheel, black		3103308	Post, right, white
	3032018	Wheel, white	9107	3032019	Wheel, black
9104	3152531	Holder		3032018	Wheel, white
9105	2576196	Travers L/LX5500, black	9108	3152748	Holder, right
			9109	3152749	Holder, left
	2576197	Travers L/LX5500, white	9110	3151289	Holder, VX, L/LX4500
	2576198	Travers L/LX4500, black		3151288	Holder, VX, L/LX4500

Parts not shown

3390409	Bag with parts, VX
3397712	Foam packing, VX
3453411	Assembling guide, VX
3391963	Packing, TV-stand
3397564	Foam packing, TV-stand
3390273	Bag with parts, TV-stand

5-1



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5-1

SERVICEJUSTERINGER MED BEOLINK 1000

Service mode

Bring Beovision 3500, 4500 og 5500 i forskellige 'service modes':
- fjern bagparten
- tast /TV/
- kortslut SERVICEMODE-stikket P48 på PCB5 kortvarigt

Service mode menuen giver mulighed for:

Type serial No.

Viser fjernsynets type- og serienummer.

Picture setup

Giver mulighed for følgende billedjusteringer:
- RED DRIVE
- GREEN DRIVE
- RED CUT-OFF BALANCE
- GREEN CUT-OFF BALANCE
- BRIGHTNESS PRESET
- SATURATION PRESET

Geometry

Giver mulighed for følgende geometrijusteringer:
- HORIZONTAL FREQUENCY
- HORIZONTAL PHASE
- HORIZONTAL AMPLITUDE
- E/W PARABOLA
- E/W TILT
- E/W CORNER
- VERTICAL AMPLITUDE
- VERTICAL LINEARITY
- VERTICAL S-CORRECTION
- VERTICAL CENTERING

TV variant

Oplyser om fjernsynets 'hardware'-variant: B/G/L, I eller B/G/M.
OBS! 'Hardware' ændres *ikke* ved at ændre i menuen.

Error message

Giver mulighed for at udlæse en evt. fejlmeddelelse (se reparationstips).

Reset

Indstil lys, farvemætning og kontrast til nominelle værdier:
- BRILLIANCE 32 PICTURE ▽ △
- COLOUR 32 PICTURE ▽ △
- CONTRAST 44 PICTURE ▽ △

Gem værdierne i modtageren, PICTURE STORE STORE så de kan kaldes tilbage ved at taste RESET.

SERVICE ADJUSTMENTS PERFORMED WITH BEOLINK 1000

Service Mode

To bring Beovisions 3500, 4500 and 5500 into various "service modes":
- remove the rear panel
- press /TV/
- short-circuit the SERVICE MODE plug, P48, on PCB5 briefly

The Service Mode menu gives access to:

Type Serial No

–Shows the type and serial number of the TV.

Picture Setup

Gives access to the following picture adjustments:
- RED DRIVE
- GREEN DRIVE
- RED CUT-OFF BALANCE
- GREEN CUT-OFF BALANCE
- BRIGHTNESS PRESET
- SATURATION PRESET

Geometry

Gives access to the following geometry adjustments:
- HORIZONTAL FREQUENCY
- HORIZONTAL PHASE
- HORIZONTAL AMPLITUDE
- E/W PARABOLA
- E/W TILT
- E/W CORNER
- VERTICAL AMPLITUDE
- VERTICAL LINEARITY
- VERTICAL S-CORRECTION
- VERTICAL CENTRING

TV Variant

Informs about the hardware variant of the TV: B/G/L, I or B/G/M.
NOTE! The hardware is *not* modified by modifying this menu.

Error Message

Allows the display of any error message (see repair tips).

Reset

Set brilliance, colour saturation and contrast to nominal values:
- BRILLIANCE 32 PICTURE ▽ △
- COLOUR 32 PICTURE ▽ △
- CONTRAST 44 PICTURE ▽ △

Store the values in the receiver, PICTURE STORE STORE, such that they can be reset by pressing RESET.

BETJENING I SERVICE MODE

PLAY	Godkend menu/værdi
« »	Step i menu
< >	Ændring af værdi
STOP	Tilbage

Der anvendes normalt farvetestbillede til de efterfølgende justeringer.

Preset

Preset-justering (referenceniveau) af lys og farvemætning.

- Indstil lys og farvemætning til nominelle værdier RESET
- Sæt modtageren i SERVICEMODE
- Vælg PICTURE SETUP menuen

Juster lys (BRI PRE) til korrekt lysindhold i billedet (typisk 3).
Juster farvemætning (SAT PRE) til korrekt farvemætning (typisk 4).

Cut-off balance

- Instil lys til nominel værdi RESET
- Indstil farvemætning til '0'
- Vælg PICTURE SETUP menuen i SERVICE-MODE.

Juster rød og grøn cut-off balance (RED BAL og GRN BAL) så de mørke felter i testbilledet er farveløse.

Drive

- Indstil lys til nominel værdi, RESET
- Indstil farvemætning til '0'
- Vælg PICTURE SETUP menuen i SERVICE-MODE

Juster rød og grøn drive (RED DRV og GRN DRV) til korrekt hvidpunkt.

HORISONTAL AFBØJNING

Hor. frekvens

- Læg 10IC2, ben 5 til stel
- Vælg GEOMETRY menuen i SERVICEMODE

Juster hor. frekvens (H FREQ) til langsomst horisontalt billedrul.
Fjern kortslutning

Øst/Vest parabel

- Vælg GEOMETRY menuen i SERVICEMODE
- Vælg EW PAR og juster

Øst/Vest 'tilt'

- Vælg GEOMETRY menuen i SERVICEMODE
- Vælg EW TILT og juster (V CENT påvirkes)

OPERATION IN SERVICE MODE

PLAY	Approve menu/value
« »	Step in menu
< >	Value modification
STOP	Return

An ordinary colour test picture is used in the following adjustments.

Preset

Preset adjustment (reference level) of brilliance and colour saturation.

- Set brilliance and colour saturation to nominal values RESET.
- Bring the receiver into SERVICE MODE
- Select PICTURE SETUP in the menu

Adjust the brilliance (BRI PRE) until the proper brilliance in the picture is achieved (typically 3).
Adjust the colour saturation (SAT PRE) until the proper colour saturation is achieved (typically 4).

Cut-off balance

- Set the brilliance to the nominal value, RESET
- Set the colour saturation to "0"
- Select the PICTURE SETUP menu in SERVICE MODE.

Adjust the red and green cut-off balance (RED BAL and GRN BAL) such that the dark fields in the test picture are without colour.

Drive

- Set the brilliance to the nominal value, RESET
- Set the colour saturation to "0"
- Select the PICTURE SETUP menu in SERVICE MODE.

Adjust the red and green drive (RED DRV and GRN DRV) until the proper white level is achieved.

HORIZONTAL DEFLECTION

Horizontal frequency

- Connect 10IC2, pin 5, to chassis
- Select the GEOMETRY menu in SERVICE MODE

Adjust the horizontal frequency (H FREQ) to the slowest possible horizontal picture roll.
Remove the short circuit.

East/West parabola

- Select the GEOMETRY menu in SERVICE MODE
- Select EW PAR and adjust

East/West tilt

- Select the GEOMETRY menu in SERVICE MODE
- Select EW TILT and adjust (V CENT is affected)

Øst/Vest 'corner'
- Vælg GEOMETRY i SERVICEMODE
- Vælg EW COR og juster til korrekt geometri i hjørner

Hor. amplitude
- Vælg GEOMETRY i SERVICEMODE
- Vælg H AMPL og juster

Hor. centrering/'Phase'
- Vælg GEOMETRY i SERVICEMODE
- Vælg H AMPL og juster til minimum bredde (63)
- Centrer billedet bedst muligt med 3S1
- Vælg H PHASE og centrer billedet så det ligger indenfor 'scan'-tiden
- Indstil lys (BRILLIANCE) til maksimum på billedskærmen
- Vælg H AMPL og juster bredden korrekt
- Vælg H PHASE og efterjuster

VERTIKAL AFBØJNING

Vert. amplitude
- Vælg GEOMETRY menuen i SERVICEMODE
- Vælg V AMPL og juster

Vert. linearitet
- Vælg GEOMETRY menuen i SERVICEMODE
- Vælg V LIN og juster

Vert. S-korrektion
- Vælg GEOMETRY menuen i SERVICEMODE
- Vælg V S-KOR og juster (EW COR påvirkes)

Vert. centrering
- Vælg GEOMETRY menuen i SERVICEMODE
- Vælg V CENT og juster (EW TILT påvirkes)

Gentag evt. justeringsproceduren

East/West corner
- Select GEOMETRY in SERVICE MODE
- Select EW COR and adjust to proper geometry in corners

Horizontal amplitude
- Select GEOMETRY in SERVICE MODE
- Select H AMPL and adjust

Horizontal centring/Phase
- Select GEOMETRY in SERVICE MODE
- Select H AMPL and adjust to minimum width (63)
- Centre the picture optimally by means of 3S1
- Select H PHASE and centre the picture such that it is within the scan period
- Set BRILLIANCE to maximum on the picture screen
- Select H AMPL and adjust the width properly
- Select H PHASE and readjust

VERTICAL DEFLECTION

Vertical amplitude
- Select the GEOMETRY menu in SERVICE MODE
- Select V AMPL and adjust

Vertical linearity
- Select the GEOMETRY menu in SERVICE MODE
- Select V LIN and adjust

Vertical S-correction
- Select the GEOMETRY menu in SERVICE MODE
- Select V S-KOR and adjust (EW COR is affected)

Vertical centring
- Select the GEOMETRY menu in SERVICE MODE
- Select V CENT and adjust (EW TILT is affected)

Repeat the adjustment procedure if required.

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JUSTERINGSVEJLEDNING

Under de følgende justeringer skal modtageren være tilsluttet et normalt farvetestbillede, hvis ikke andet er nævnt.
Servicejusteringer med terminal skal være foretaget.

Modul 2 PAL/SECAM/NTSC

Fokus

- Indstil lys og farvemætning til nominelle værdier, RESET
- Indstil kontrast til maksimum

Juster til optimal fokusering set ca. 10 cm fra skærmkanten, med fokuspotentiometeret på modul 3.

4,43 MHz cromasug

- Tilslut et PAL testbillede (farvebar)
- Slut oscilloskop til 2IC4, ben 1, koordinat 4C

Juster til minimum 4,43 MHz-rest på signalet, vha. 2L16 - 4,43 MHz, koordinat 2D.

'Phase'

- Tilslut et PAL testbillede (farvebar)
- Slut oscilloskop til 2IC4, ben 1, koordinat 4c. Indstil X-afbøjningen på 10µs/div., så der ses både lige og ulige horisontale linier)

Juster til bedst muligt sammenfald i farvebaren, med 2R106 – Phase, koordinat 3A.

Cut-off

- Indstil lys til nominel værdi, RESET
- Tast PICTURE MUTE

Mål med et DC-voltmeter (Ri >1MOhm) spændingsfaldet over 3R1, 3R2 og 3R3.
Juster med G2-potentiometeret (modul 3), indtil der er 20V over den af 3R1, 3R2 eller 3R3, der har det mindste spændingsfald.

Tast PICTURE MUTE efter justeringen.

Modul 1 TUNER IF B/G/L

AFC

- Slut oscilloskop til indgangen på 1BP1, koordinat 1B (x = 1µs).
- Tilslut antennesignal med lyd (AFC = 0 i tuningsmenu)

Juster med 1L16, koordinat 2B indtil top og bund af signalet er så parallelle som muligt.

ADJUSTMENT INSTRUCTIONS

During the following adjustments the receiver must be connected to an ordinary colour test picture unless otherwise specified.
Service adjustments carried out by means of the terminal must have been executed.

Module 2, PAL/SECAM/NTSC

Focus

- Set brilliance and colour saturation to nominal values, RESET
- Set contrast to maximum

Adjust for optimal focusing when viewed approx. 10 cm from the edge of the screen with the focus potentiometer on module 3.

4.43 MHz chroma separation filter

- Connect the receiver to a PAL test picture (colour bar)
- Connect oscilloscope to 2IC4, pin 1, coordinate 4C

Adjust to a minimum of 4.43 MHz residue on the signal by means of 2L16 - 4.43 MHz, coordinate 2D.

Phase

- Connect the receiver to a PAL test picture (colour bar)
- Connect oscilloscope to 2IC4, pin 1, coordinate 4c.
- Set the X deflection to 10µs/div., such that both even and uneven horizontal lines can be seen)

Adjust to the best possible convergence in the colour bar by means of 2R106 – Phase, coordinate 3A.

Cut-off

- Set brilliance to nominal value, RESET
- Press PICTURE MUTE

Measure the voltage drop across 3R1, 3R2 and 3R3 by means of a DC voltmeter (R: >1MOhm).
Adjust by means of the G2 potentiometer (module 3) until there is a voltage of 20V across that resistor (3R1, 3R2 or 3R3) which has the smallest voltage drop.

Press PICTURE MUTE after the adjustment has been executed.

Module 1, TUNER IF B/G/L

AFC

- Connect oscilloscope to the input of 1BP1, coordinate 1B (x = 1µs).
- Connect aerial signal with sound (AFC = 0 in tuning menu).

Adjust by means of 1L16, coordinate 2B, until the top and bottom of the signal are as parallel as possible.

Sound carrier 33,4 MHz
Justeres kun hvis 1IC6 TDA8120 udskiftes.

- Slut oscilloskop til indgangen på 1BP1, koordinat 1B (x = 1µs)

Juster med 1L13, koordinat 2C indtil top og bund af signalet er så parallelle som muligt.

Video carrier 38,9 MHz
Justeres kun hvis 1IC6 TDA8120 udskiftes.

- Slut oscilloskop til 1IC6, ben 8, koordinat 2C.

Juster med 1L15, koordinat 3C, indtil for- og bagreces på liniesynkpulsen er så vandret som muligt.

Stop tuning
Justeres kun hvis 1IC1, koordinat 2A udskiftes

- Fjern antennesignalet fra tuneren
- Slut en frekvenstæller til 1IC1, ben 5 (2A)

Juster med 1R137, koordinat 2A til 15625 Hz.

AGC System B/G/L
- Tilslut et UHF antennesignal (B/G) på 2 mV
- Juster signalet ind GOTO XXX
- Slut oscilloskop til 1L11, koordinat 3D

Drej til maksimal udstyring med 1R105 (3D). Juster herefter HF-signalet til -3dB i forhold til max. udstyring.

- Tilslut et UHF antennesignal (system L) på 2mV
- Juster signalet ind GOTO XXX
- Slut oscilloskop til 1L11, koordinat 3D

Drej til maksimal udstyring med 1R17 (3D). Juster herefter HF-signalet til -3dB i forhold til max. udstyring.

Alternativ AGC-justering, system B/G/L
- Tilslut et antennesignal (B/G) via variabel attenuator
- Juster signalet ind GOTO XXX
- Slut et DC-voltmeter til 1C32, koordinat 2D
- Drej 1R105 med uret til anslag
- Juster den variable attenuator, indtil billedet netop er støjfrit

Juster med 1R105 (3D) indtil AGC-spændingen på 1C32 netop ændrer sig.

Sound carrier 33.4 MHz
Only to be adjusted if 1IC6 TDA8120 is replaced.

- Connect oscilloscope to the input of 1BP1, coordinate 1B (x = 1µs).

Adjust by means of 1L13, coordinate 2C, until the top and bottom of the signal are as parallel as possible.

Video carrier 38.9 MHz
Only to be adjusted if 1IC6 TDA8120 is replaced.

- Connect oscilloscope to 1IC6, pin 8, coordinate 2C.

Adjust by means of 1L15, coordinate 3C, until the front and rear recesses on the line sync pulse are as horizontal as possible.

Stop tuning
Only to be adjusted if 1IC1, coordinate 2A, is replaced

- Disconnect the aerial signal from the tuner
- Connect a frequency counter to 1IC1, pin 5 (2A)

Adjust by means of 1R137, coordinate 2A, to 15625 Hz.

AGC System B/G/L
- Connect a 2 mV UHF aerial signal (B/G)
- Adjust the signal GOTO XXX
- Connect oscilloscope to 1L11, coordinate 3D

Turn to maximum deflection by means of 1R105 (3D). Then adjust the HF signal to -3dB compared to maximum deflection.

- Connect a 2mV UHF aerial signal (system L)
- Adjust the signal GOTO XXX
- Connect oscilloscope to 1L11, coordinate 3D

Turn to maximum deflection by means of 1R17 (3D). Then adjust the HF signal to -3dB compared to maximum deflection.

Alternative AGC adjustment, system B/G/L
- Connect an aerial signal (B/G) via a variable attenuator
- Adjust the signal GOTO XXX
- Connect a DC voltmeter to 1C32, coordinate 2D
- Turn 1R105 clockwise to maximum
- Adjust the variable attenuator until the picture is just free of noise

Adjust by means of 1R105 (3D) until the AGC voltage at 1C32 just changes.

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- Tilslut et antennesignal (L) via variabel attenuator
- Juster signalet ind GOTO XXX
- Slut et DC-voltmeter til 1C32, koordinat 2D
- Drej 1R17 med uret til anslag
- Juster den variable attenuator til billedet netop er støjfrit

Juster med 1R17 (3D) indtil AGC-spændingen på 1C32 netop ændrer sig.

Kanaladskillelse

Anvend en CTV servicegenerator, der kan levere A2 stereo lydmodulation, til denne justering.

- Slut oscilloskop til 1IC7, ben 12, koordinat 1C.

Juster med 1R93 (1C) til minimal overhøring.

NICAM system B/G og I

- Tilslut et NICAM antennesignal B/G eller I.
- Slut oscilloskop, der kan lave x-y afbøjning, til 8L1 og 8L2, koordinat 1A, på den side der vender mod 8C59, koordinat 1A.

Juster med 8C34, koordinat 1B (VCO-frekvensen 5,85 MHz for system B/G eller 6,552 MHz for system I). Juster indtil oscilloskopbilledet herunder er opnået.

- Connect an aerial signal (L) via a variable attenuator
- Adjust the signal GOTO XXX
- Connect a DC voltmeter to 1C32, coordinate D2
- Turn 1R17 clockwise to maximum
- Adjust the variable attenuator until the picture is just free of noise

Adjust by means of 1R17 (3D) until the AGC voltage at 1C32 just changes.

Channel separation

Use a CTV service generator capable of supplying A2 stereo sound modulation for this adjustment.

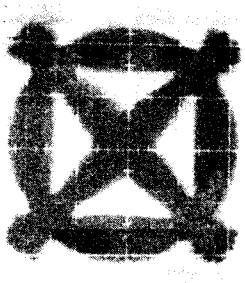
- Connect oscilloscope to 1IC7, pin 12, coordinate 1C.

Adjust by means of 1R93 (1C) to minimum cross-talk.

NICAM system B/G and I

- Connect a NICAM aerial signal, B/G or I.
- Connect an oscilloscope capable of performing x-y deflection to 8L1 and 8L2, coordinate 1A, on the side facing towards 8C59, coordinate 1A.

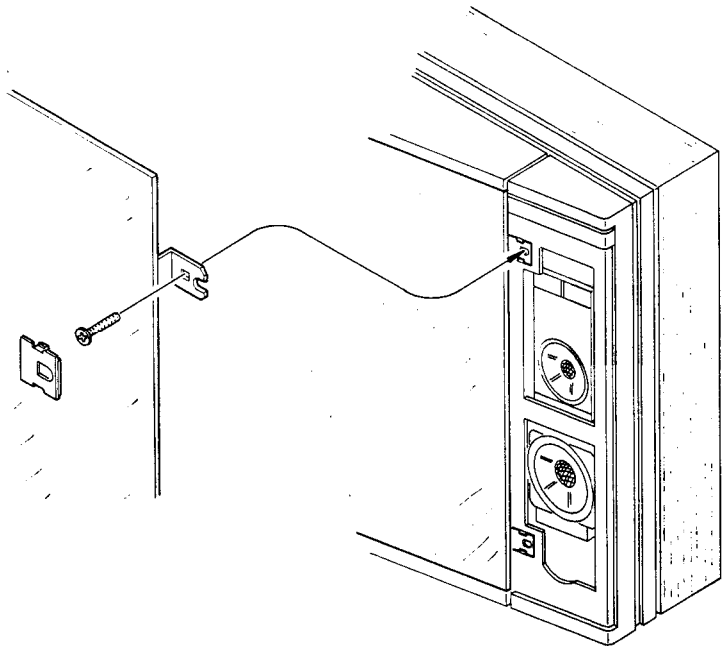
Adjust by means of 8C34, coordinate 1B, (VCO frequency 5.85 MHz for system B/G or 6.552 MHz for system I). Adjust until the oscilloscope picture shown below has been achieved.



x = y = 0,2 V/DIV

ADSKILLELSE
LX4500/5500

DISASSEMBLY
LX4500/5500



Kontrastskærm

Rammen med højttalerstof fjernes ved først at trække forsigtigt ud for neden, dernæst i midten og til sidst foroven.

De fire dæksler, to i hver side, aftages med en lille flad skruetrækker.

Skruerne som holder skærmen er nu tilgængelige.

Afmonter de to nederste skruer og *kun* en foroven.

Hold godt fast på skærmen medens den sidste skrue fjernes.

Contrast screen

Remove frame with loudspeaker cloth by first pulling carfully from the bottom, then in the middle and finally from the top.

Remove the four caps, two in each side, using a small flat screw driver.

The screws which hold the screen are now accessible.

Remove the two bottom screws and *one* from the top.

Hold tightly on to the screen while removing the last screw.

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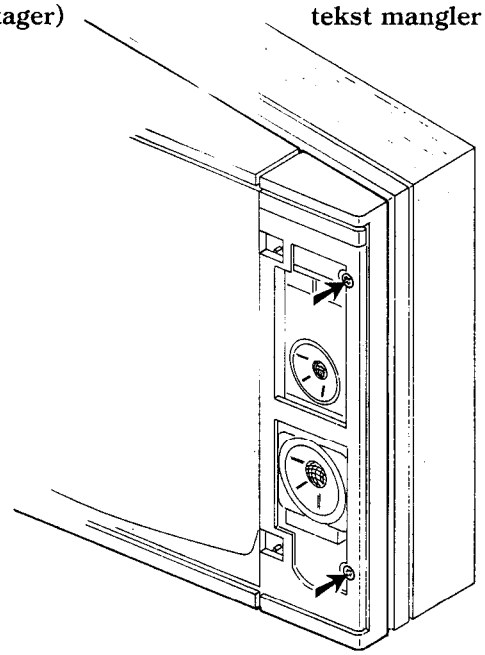
Frontramme
(Adgang til IR sender/modtager)

Front frame
tekst mangler



Kontrastskærmen afmonteres.

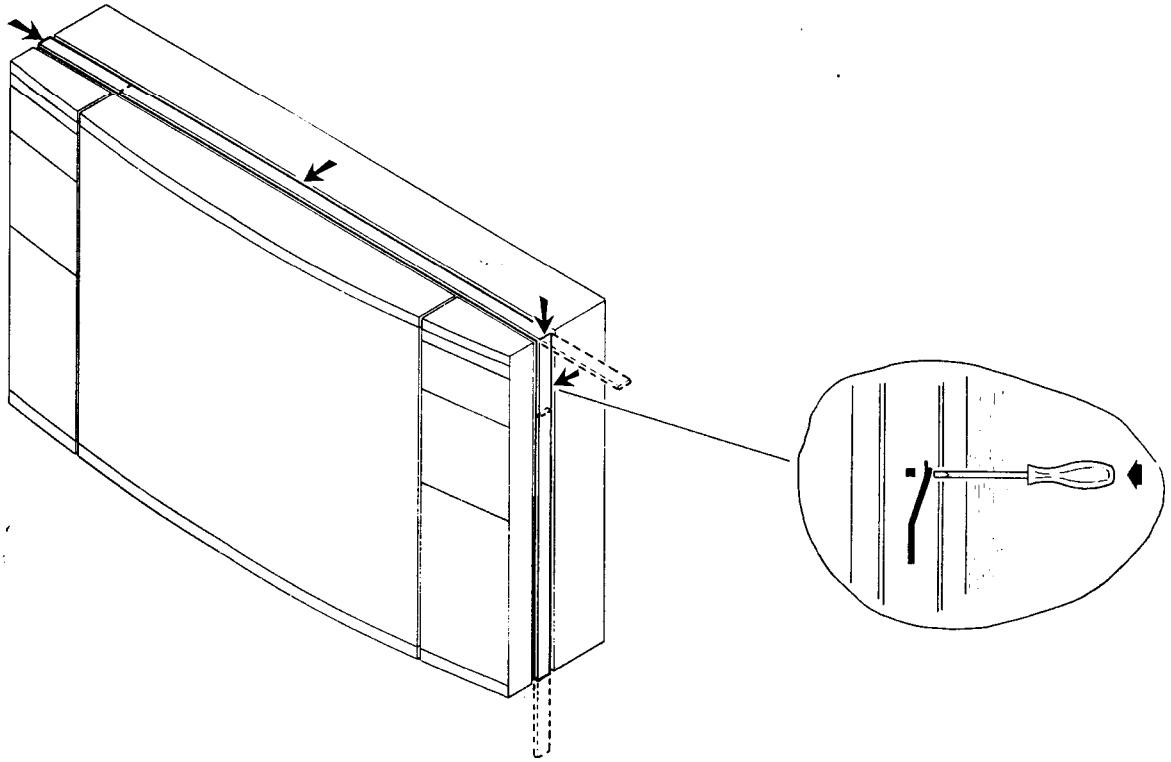
De to viste skruer og de to tilsvarende i den anden side skrues af, og frontrammen kan aftages.

Remove the contrast screen.

Unscrew the two screws illustrated as well the two corresponding screws in the other side, and take of the front frame.

Topliste/Sideliste

Top list/Side list



Sidelisterne løsnes ved at udløse låsen med en smal skruetrækker.

Når låsen er udløst kan sidelisten skubbes ned.

Toplisten løsnes som sidelisterne.

Toplisten skubbes mod højre.

Loosen side lists by releasing lock using a small screw driver.

Now the side list may be pushed down.

Loosen top list like the side lists.

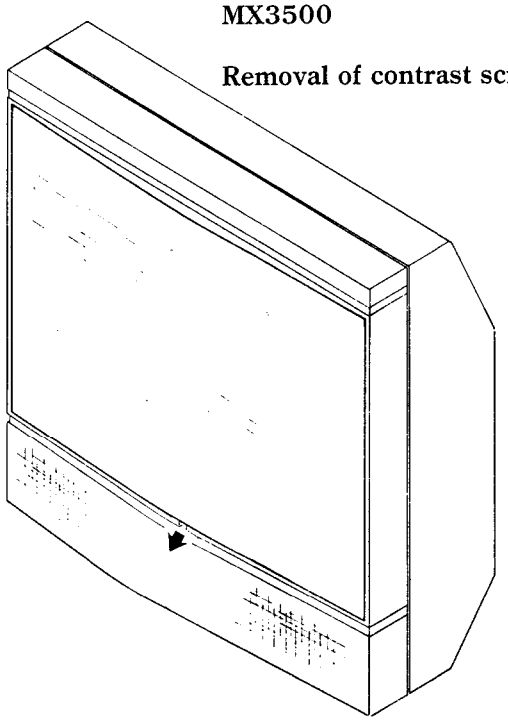
Push top list towards the right.

ADSKILLELSE
MX3500

DISASSEMBLY
MX3500

Demontering af kontrastskærmen

Removal of contrast screen



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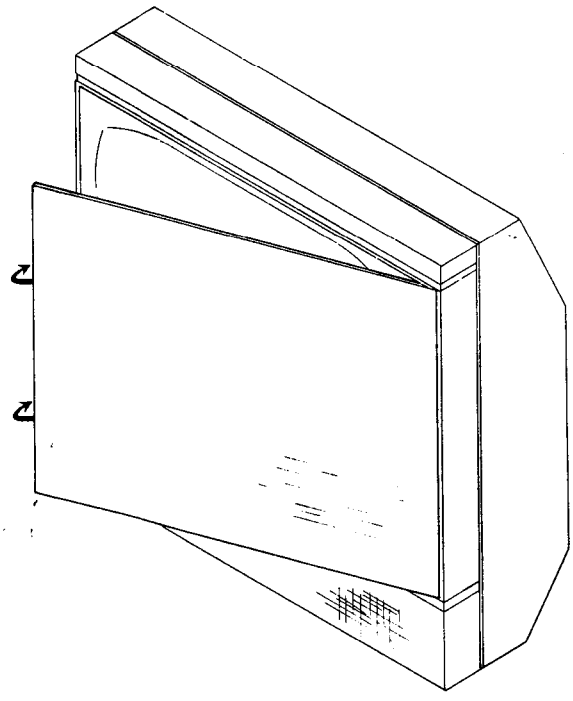
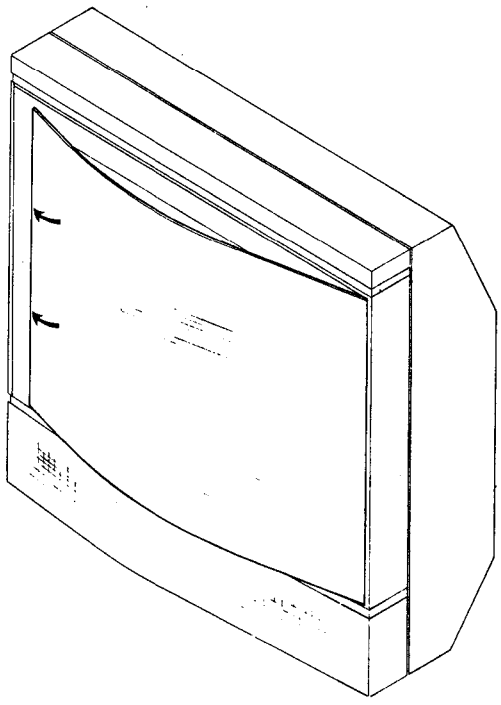
Træk ud i kontrastskærmens nederste kant.

Pull the lower edge of the contrast screen outwards.

Montering af kontrastskærmen

Mounting of contrast screen





Monter skærmen i rillen af det ene sidepanel.

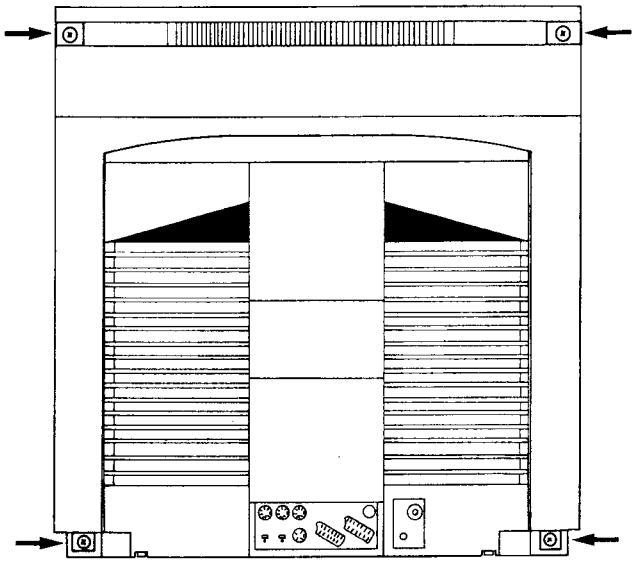
Bøj skærmen frem og monter skærmen i rillen af det modsatte sidepanel.

Fit the screen into the groove in one of the side panels.

Flex the screen slightly outwards and fit the screen into the groove in the opposite side panel.

Bagpart

Rear part



De fire skruer løsnes, og bagparten trækkes lige bagud.

Loosen the 4 screws and then remove the rear part by pulling straight outwards.

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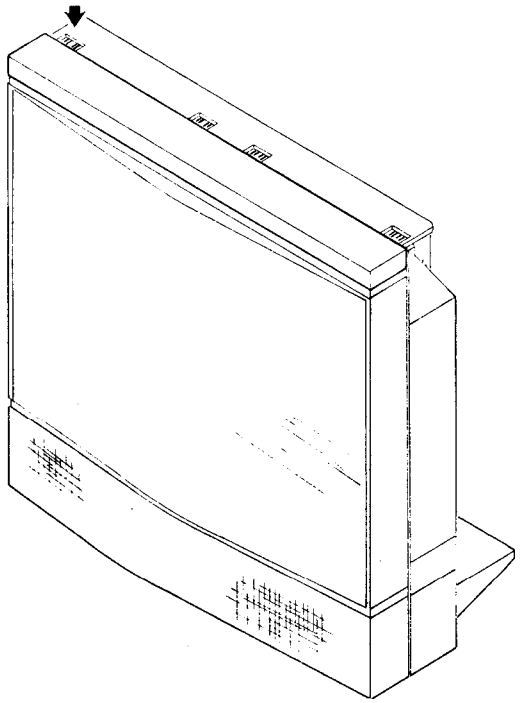
Toppanel

Top panel



Panelet løsnes i den ene side, ved at låsen aktiveres med en skruetrækker.

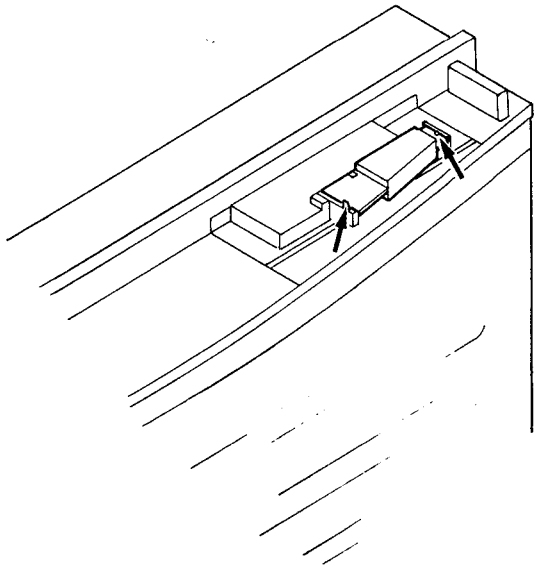
Toppanelet kan nu fjernes.

Loosen the panel in one side by releasing the lock with a screwdriver.

The top panel can now be removed.

PCB 09 IR-modtager

PCB 09 IR-receiver

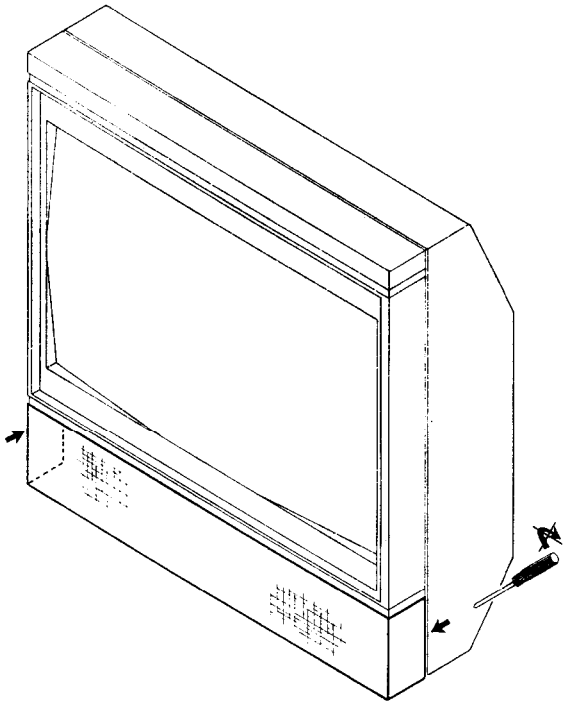


De to låse løsnes og PCB'en tages ud, ved at løfte i den forreste kant.

Release the two locks and remove the PCB by lifting it at its front.

Højttalerpanel

Loudspeaker panel



En skruetrækker sættes forsigtigt ind mellem højttalerpanelet og kabinettet i apparatets højre side.

Højttalerpanelet løsnes med et let tryk med skruetrækkeren og skubbes dernæst mod venstre.

Med et let tryk mod højttalerpanelets venstre hjørne frigøres panelet fuldstændig.

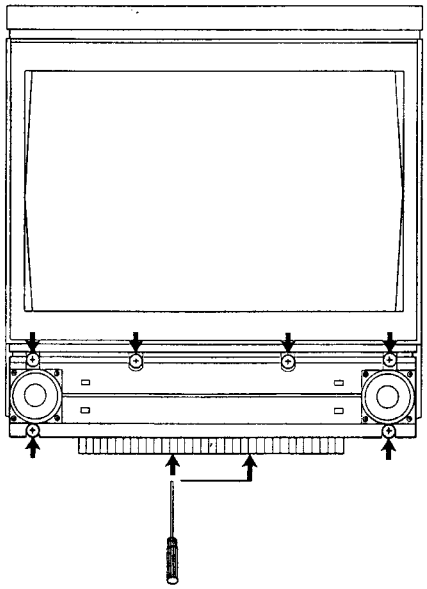
Carefully insert a screwdriver between the loudspeaker panel and the cabinet in the right-hand side of the set.

Loosen the loudspeaker panel by exerting a light pressure with the screwdriver.
Push the loudspeaker panel towards the left.

A light push against the left corner of the loudspeaker panel will now release the panel completely.

Højtalerbaffel

Loudspeaker baffle



De seks skruer fjernes.

Højttalerbafflen løsnes, ved at de to låse i bunden af apparatet aktiveres, hvorefter bafflen trækkes fremad og opad.

Remove the 6 screws.

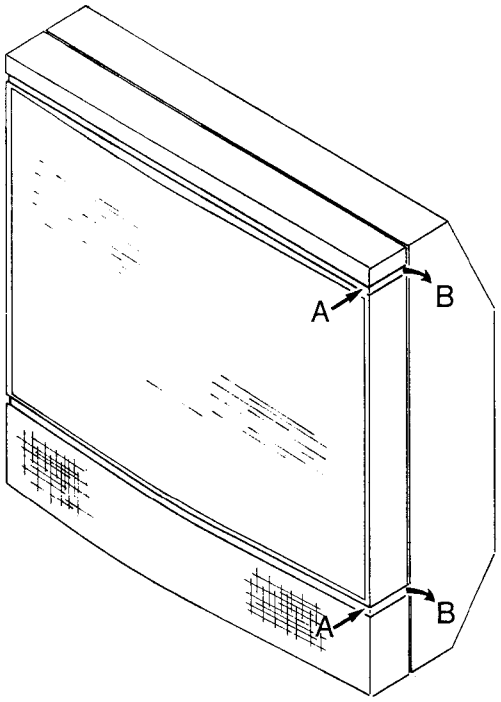
Loosen the loudspeaker baffle by using a screwdriver to release the 2 locks at the base of the set. Then pull the baffle outwards and upwards.

ADSKILLELSE
MX5500

DISASSEMBLY
MX5500

Demontering af kontrastskærmen

Removal of contrast screen



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Pyntelisterne over og under kontrastskærmen løsnes ved at trykke listen ind (A) og samtidig trække ud i pilen B's retning. Listerne kan nu frigøres hele vejen rundt.

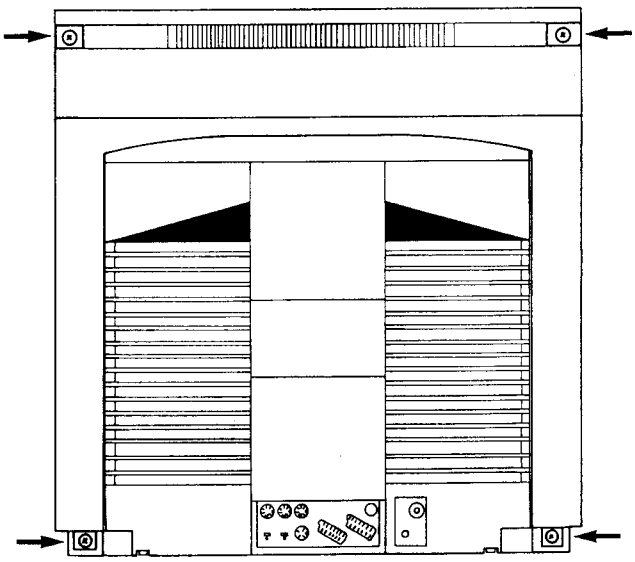
I hvert af de fire hjørner sidder en skrue som skrues ud, hvorefter kontrastskærmen er fri.

Loosen the upper and lower plastic strips by firmly pressing the strips in one side (A) and simultaneously pulling at the end of the strips in the direction of the arrow B. The strips are now loose and can be removed.

Loosen the screw in each of the four corners. The contrast screen can now be removed.

Bagpart

Rear part

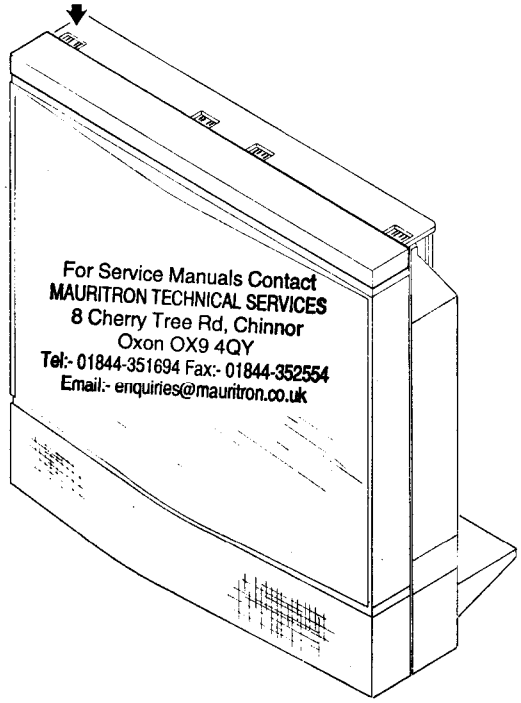


De fire skruer løsnes, og bagparten trækkes lige bagud.

Loosen the four screws and then remove the rear part by pulling straight outwards.

Toppanel

Top panel



Panelet løsnes i den ene side, ved at låsen aktiveres med en skruetrækker.

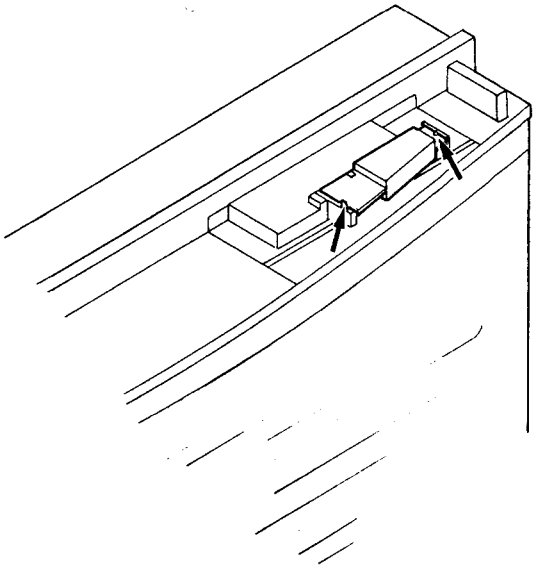
Toppanelet kan nu fjernes.

Loosen the panel in one side by releasing the lock with a screwdriver.

The top panel can now be removed.

PCB 09 IR-modtager

PCB 09 IR-receiver

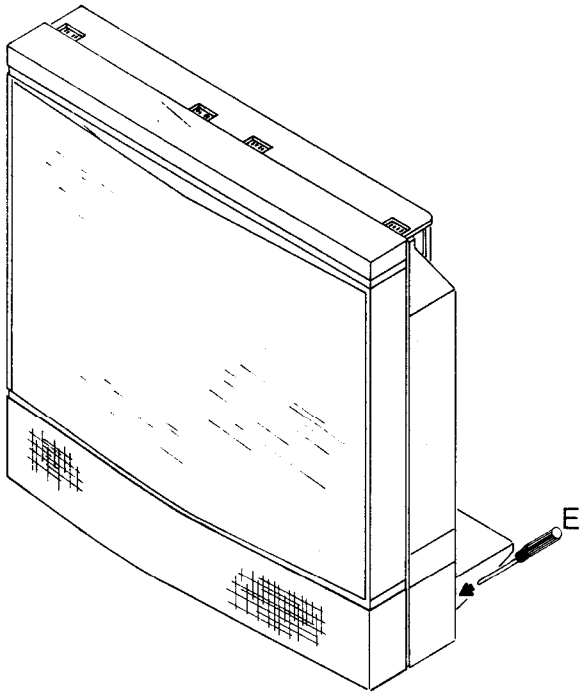


De to låse løsnes og PCB'en tages ud, ved at løfte i den forreste kant.

Release the two locks and remove the PCB by lifting it at its front.

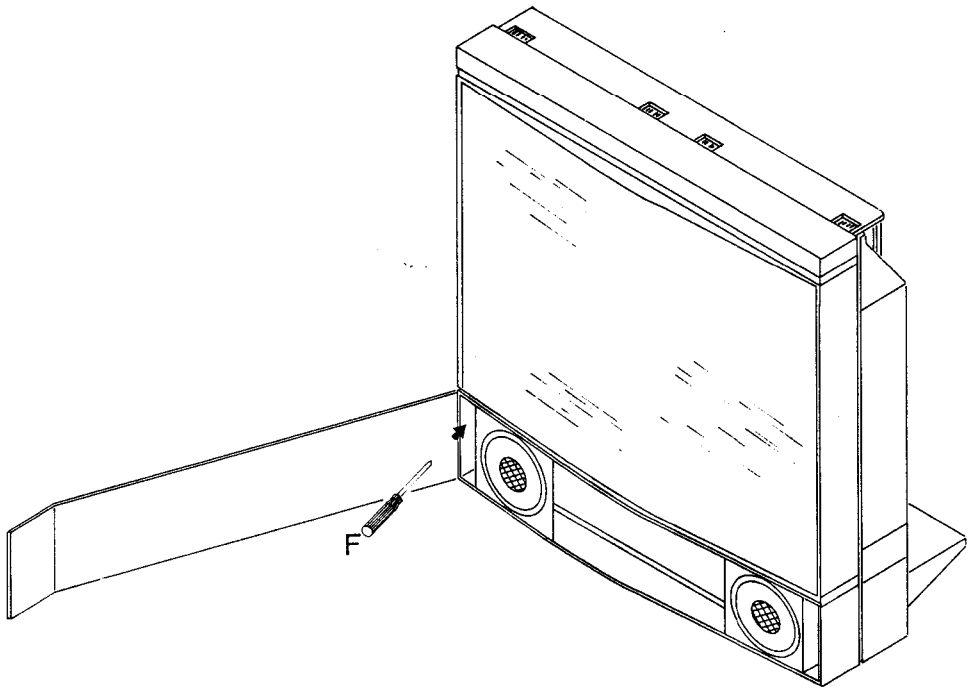
Højttalerpanel

Loudspeaker panel



Panelet frigøres i venstre side (set bagfra) ved at løsne låsene med en skruetrækker igennem hullerne i kabinettet (E). Herefter trækkes panelet fri langs kanten.

Loosen the panel in the left-hand side (seen from behind) by inserting a screwdriver into the holes in the cabinet (E) to release the locks. Loosen the panel at the front of the set.



Panelet frigøres i den anden side ved at løsne låsene forfra med en skruetrækker mellem panelet og kabinettet (F).

To detach the panel in the opposite side, release the locks by inserting a screwdriver between the panel and the cabinet (F).

REPARATIONSTIPS

Beovision 3500, 4500 og 5500 er forsynet med en række sikringskredsløb der træder i kraft ved fejl i apparatet og beskytter apparatet mod følgeskader.

Flg. tre fejltyper overvåges:

- 'Power fail' (spændingssvigt)
- IIC-bus fejl
- Fejl i NV-RAM

'Power fail'-kredsløbet er et ringkoblet system, der detekterer om en eller flere spændingsstabiliseringer er overbelastede. I givet fald registreres dette af µP'en, der bringer apparatet i stand-by.

Kredsløbet fungerer ved, at µP 6IC13 sender en pulserende spænding ud på ben 10.
Hvis der ikke er fejl, modtager µP'en signalet igen på ben 13.
Hvis der opstår en overbelastning, 'clamper' den overbelastede forsyning signalet, og der kommer ikke noget retur til ben 13.

Det samme signal styrer desuden netdelen ON via 4C61, 4R72 og 4TR35.
Hvis der opstår en fejl i µP, så den ikke længere udsender den pulserende spænding, går netdelen automatisk i stand-by.

IIC-bus fejlsystemet er en del af softwaren, der registrerer kommunikationsfejl mellem µP'en og de komponenter, der styres via IIC-bussen.
Hvis der opstår en sådan fejl, bringer µP'en apparatet i stand-by.

Hvis der opstår fejl i NV-RAM (6IC5), så det ikke er muligt at overføre apparatets grundindstillinger til afbøjningsdelen og farvedelen, erstattet µP'en de manglende data med standardværdier, der er gemt i programlageret.
Apparatet skriver »DATA FAILURE« i statuslinien, hver gang der tændes, indtil fejlen er udbedret.

REPAIR TIPS

The Beovisions 3500, 4500 and 5500 are equipped with a number of safety circuits which are engaged in case of errors in the set to protect the set from damage caused by such errors.

The following three types of error are monitored:

- 'Power fail'
- IIC bus errors
- Errors in NV-RAM

The "power fail" circuit is a ring coupled system that detects whether or not one or several voltage stabilizers are overloaded. If that is the case, this is registered by the µP, which brings the set into stand-by.

The circuit operates in that the µP 6IC13 outputs a pulsating voltage at pin 10.
If there are no errors, the µP receives the signal back at pin 13.
If an overload condition occurs, the overloaded supply clamps the signal, and no signal is returned to pin 13.

The same signal furthermore switches the power-supply unit ON through 4C61, 4R72 and 4TR35.
If an error occurs in the µP such that it no longer outputs the pulsating voltage, the power-supply unit automatically goes into stand-by.

The IIC bus error system is a part of the software that registers communication errors between the µP and the components controlled through the IIC bus.
If such an error occurs, the µP brings the set into standby.

If an error occurs in the NV-RAM (6IC5) such that it is not possible to transfer the basic settings of the set to the deflection section and the colour section, the µP replaces the missing data with standard values stored in the program memory.
The set writes "DATA FAILURE" in the status line every time it is switched on until the defect has been repaired.

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Det er muligt, at undersøge hvilken fejltype der er opstået:

Tryk på stand-by på apparatet

↓

Tryk [TV] på Beolink 1000 terminalen.

↓

Tænder TV'et? → Ja: Står der »DATA FAILURE« i statuslinien?
Nej? Ja: Der er registreret en fejl i NV-RAM
Nej: Der er en periodisk fejl. Aktiver SERVICE-MODE og se under ERROR MESSAGE

↓

Tryk på stand-by på apparatet.
Kortslut servicestikket og tryk [TV] på Beolink 1000.

Tænder TV'et? → Ja: Der er en IIC-bus fejl. Aktiver SERVICEMODE og se under ERROR MESSAGE.
Nej

↓

Der er opstået en 'power fail'. Anvend service kit 6276361.

Fejlfinding ved IIC-bus fejl

Kortslut servicestikket og tast [TV].

Apparatet tænder, og ICC-bus fejl ignoreres. Ud fra fejlsymptomerne kan fejlen indkredses.
Som hjælp hertil kan apparatet bringes i SERVICE-MODE ved først at fjerne kortslutningen i service-stikket og herefter kortvarigt at kortslutte igen.

I SERVICEMODE menuen vælges ERROR MESSAGE og skærmbilledet LAST ERROR viser en af flg. tekster:

(no error)	Ingen fejl er registreret
POWERFAIL:	Apparatet blev bragt i stand-by pga. en 'power-fail'.
DATA FAILURE:	Datafejl under skrivning/læsning til/fra NV-RAM (6IC5).
IIC ADDRESS	22 6IC8, TEXT IC
	40 8IC3, NICAM PORT EXPANDER
	42 2IC5, DAC TIL CUTOFF OG DRIVE
	80 5IC1, SOUND CONTROLLER
	84 1IC7, A-2 STEREO-DEKODER
	8C 10IC5, GEOMETRY CONTROLLER
	C0 1IC4, TUNING CITAC
	44 12IC10PIP SWITCH
	2e 12IC9PIP IC

It is possible to examine which type of error has occurred:

Press the stand-by button on the set

↓

Press [TV] on the Beolink 1000 terminal

↓

Does the TV switch on? → Yes: Does the status line read "DATA FAILURE"?
No Yes: An error has been registered in the NV-RAM
No: There is a periodic error. Actuate SERVICE MODE and look under ERROR MESSAGE

↓

Press the stand-by button on the set.
Short-circuit the service plug and press [TV] on Beolink 1000.

Does the TV switch on? → Yes: There is an IIC bus error. Actuate SERVICE MODE and look under ERROR MESSAGE.
No

↓

A "power fail" condition has occurred. Use service kit 6276361.

Fault-finding in connection with IIC bus errors

Short-circuit the service plug and press [TV].

The set switches on, and IIC bus errors are ignored. The error can be isolated on the basis of the error symptoms.
To this end the set can be brought into SERVICE MODE by first removing the short circuit in the service plug and then short-circuiting it again briefly.

Select ERROR MESSAGE in the SERVICE MENU, and the screen picture LAST ERROR will show one of the following texts:

Bemærk: En IIC-bus fejl betyder, at kommunikationen på bussen svigtede, da µP'en forsøgte at kommunikere med den pågældende adresse. I de fleste tilfælde betyder det, at den tilhørende komponent er defekt. Fejlen kan dog også skyldes en anden komponent, der ødelagde kommunikationen netop, som der blev kommunikeret med adressen, der står som LAST ERROR.

TIPS: Ved en fejl, hvor al kommunikation på bussen er blokeret, registreres IIC ADDRESS 8C oftest som LAST ERROR. Hvis apparatet startes med servicestikket kortsluttet (busfejl ignoreres), viser apparatet kun en vandret streg.

Fejlfinding ved 'power-fail'

Til dette formål er der fremstillet et servicekit, best. nr. 6276361, der består af 4 adaptorer.
BEMÆRK: Fejlfinding med dette kit kobler 'power-fail'-kredsløbet fra. Der kan derfor opstå følgefejl.

Der er registreret en 'power-fail'.
Under resten af fejlsøgningen skal servicestikket være kortsluttet.

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(no error)	No error has been registered
POWERFAIL:	The set was brought into stand-by because of a "power fail" condition.
DATA FAILURE:	Data error during writing/reading into/from the NV-RAM (6IC5)
IIC ADDRESS 22	6IC8, TEXT IC
40	8IC3, NICAM PORT EXPANDER
42	2IC5, DAC FOR CUT-OFF AND DRIVE
80	5IC1, SOUND CONTROLLER
84	1IC7, A2 STEREO DECODER
8C	10IC5, GEOMETRY CONTROLLER
C0	1IC4, TUNING CITAC
44	12IC10, PIP SWITCH
2e	12IC9, PIP IC

Note: An IIC bus error means that the communication on the bus failed when the µP tried to communicate with the address in question. In most cases this means that the component associated with that address is defective. However, the error may also have been caused by another component which destroyed the communication just when communication was in progress with the address listed as LAST ERROR.

TIPS: In the case of an error where all communication on the bus is blocked, IIC ADDRESS 8C is usually registered as the LAST ERROR. If the set is started with the service plug short-circuited (bus errors are ignored), the set will only show a horizontal line.

Fault-finding in connection with "power fail"

A service kit consisting of four adapters has been made for this purpose, part no. 6276361.
NOTE: Fault-finding with this kit disengages the "power fail" circuit. Consequently, errors may occur as a consequence of that.

A "power fail" condition has been registered.
During the remainder of the fault-finding operation the service plug must be short-circuited.

Afmonter 8P804 (kun hvis NICAM er monteret).
Tryk på stand-by på apparatet.
Tast [TV]

Stand-by Nej ⟶ Undersøg forsyningerne på
Ja modul 08 (NICAM)

Tryk på stand-by på apparatet.
Tast [AV] [RADIO] (= audio mode)

Stand-by Nej ⟶ [A]
Ja

Monter adaptor 1 i serie med kablet til 5P57.
Tryk på stand-by på apparatet.
Tast [TV]

Stand-by Nej ⟶ Undersøg forsyningerne på
Ja modul 05 (VSS).

Monter adaptor 3 i serie med kablet til 10P15.
Tryk på stand-by på apparatet.
Tast [TV].

Stand-by Nej: ⟶ Undersøg forsyningerne på
Ja modul 01 (MF).

Monter adaptor 4 i serie med 6P71. Mellemleddet mrk. MODUL 4 monteres i serie med stik 4P81.
Tryk på stand-by på apparatet.
Tast [TV].

Stand-by Nej ⟶ Undersøg forsyninger på modul
Ja 10 og strålestrømsbegrænser.

Undersøg 'power-fail out'/retur på modul 05 (µP/TEXT).

Dismount 8P804 (only if NICAM is installed).
Press the stand-by button on the set.
Press [TV]

Stand-by No ⟶ Check the supplies on module 08
Yes

Press the stand-by button on the set
Press [AV] [RADIO] (= audio mode)

Stand-by No ⟶ [A]
Yes

Mount adapter 1 in series with the cable to 5P57.
Press the stand-by button on the set.
Press [TV]

Stand-by No ⟶ Check the supplies on
Yes module 05 (VSS)

Mount adapter 3 in series with the cable to 10P15.
Press the stand-by button on the set.
Press [TV].

Stand-by No ⟶ Check the supplies on module 01
Yes (IF)

Mount adapter 4 in series with 6P71. Mount the connecting link marked MODULE 4 in series with plug 4P81.
Press the stand-by button on the set.
Press [TV].

Stand-by No ⟶ Check the supplies on module 10
Yes and the beam current limiter.

Check "power fail out"/return on module 06 (µP/TEXT).

[A] Afmonter 10P31 (kun hvis der er monteret PIP).
Tryk på stand-by på apparatet.
Tast [TV].

Stand-by Nej ⟶ Undersøg forsyningerne på
Ja modul 12 (PIP).

Monter adaptor 2 i serie med kablet til 10P12.
Tryk på stand-by på apparatet.
Tast [TV].

Stand-by ⟶ Nej: Undersøg forsyningerne på
Ja modul 02 (PAL/SECAM/NTSC).

Undersøg forsyningerne på modul 06 ved 6TR35-6TR38 (µP/TEXT).

[A] Dismount 10P31 (only if PIP is installed)
Press the stand-by button on the set.
Press [TV].

Stand-by No ⟶ Check the supplies on module L2
Yes (PIP)

Mount adapter 2 in series with the cable to 10P12.
Press the stand-by button on the set.
Press [TV].

Stand-by ⟶ No: Check the supplied on module 02
Yes (PAL/SECAM/NTSC)

Check the supplies on module 06 next to 6TR35-6TR38 (µP/TEXT).

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ISOLATIONSTEST

Ethvert apparat *skal* isolationstestes efter at det har været adskilt. Testen udføres når apparatet igen er helt samlet og klar til udlevering til kunden.

Isolationstesten udføres på følgende måde:

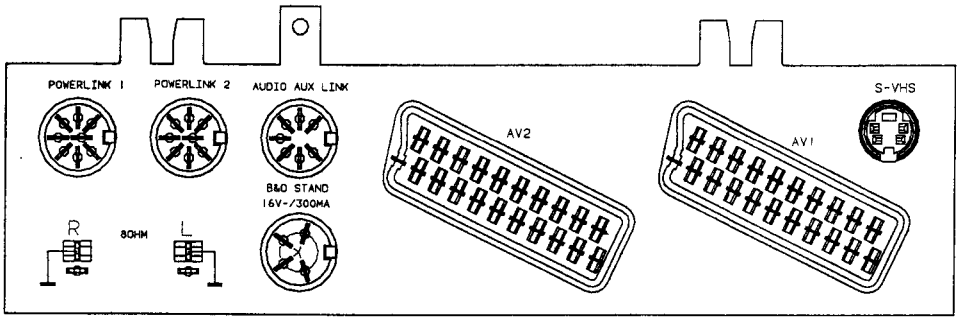
De to stikben på netstikket kortsluttes og tilsluttes en af terminalerne på isolationstesteren. Den anden terminal fra isolationstesteren tilsluttes stelbenet i en af højttalerstikdåserne.

INSULATION TEST

Each set *must* be insulation tested after it has been dismantled. The test is to be carried out when the set has been re-assembled and is ready for delivery to the customer.

The insulation test is carried out in the following way:

Short-circuit the two plug pins of the main plug and connect one of the terminals of the insulation tester. Connect the other terminal of the insulation tester to the chassis pin of one of the loudspeaker sockets.



OBS!
For at undgå beskadigelser på apparatet er det vigtigt, at begge terminaler fra isolationstesteren har virkelig god kontakt.

Der drejes nu langsomt med spændingsreguleringen på isolationstesteren indtil en spænding på 1,5-2 kV er opnået. Her skal den holdes i 1 sekund, derefter drejes der langsomt ned for spændingen igen.

Der må ikke på noget tidspunkt under testen forekomme overslag.

NOTE!
To avoid damaging the set, it is essential that both insulator test terminals are in really good contact.

Now turn slowly the voltage control down on the insulation tester until a voltage of 1.5-2 kV is obtained. Hold it there for 1 sec, then turn slowly the voltage down again.

Flashovers are not permitted during the testing procedure.

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Picture-in-picture

Type 4120 (LX)
4121 (MX)

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DIAGRAM Picture-In-Picture

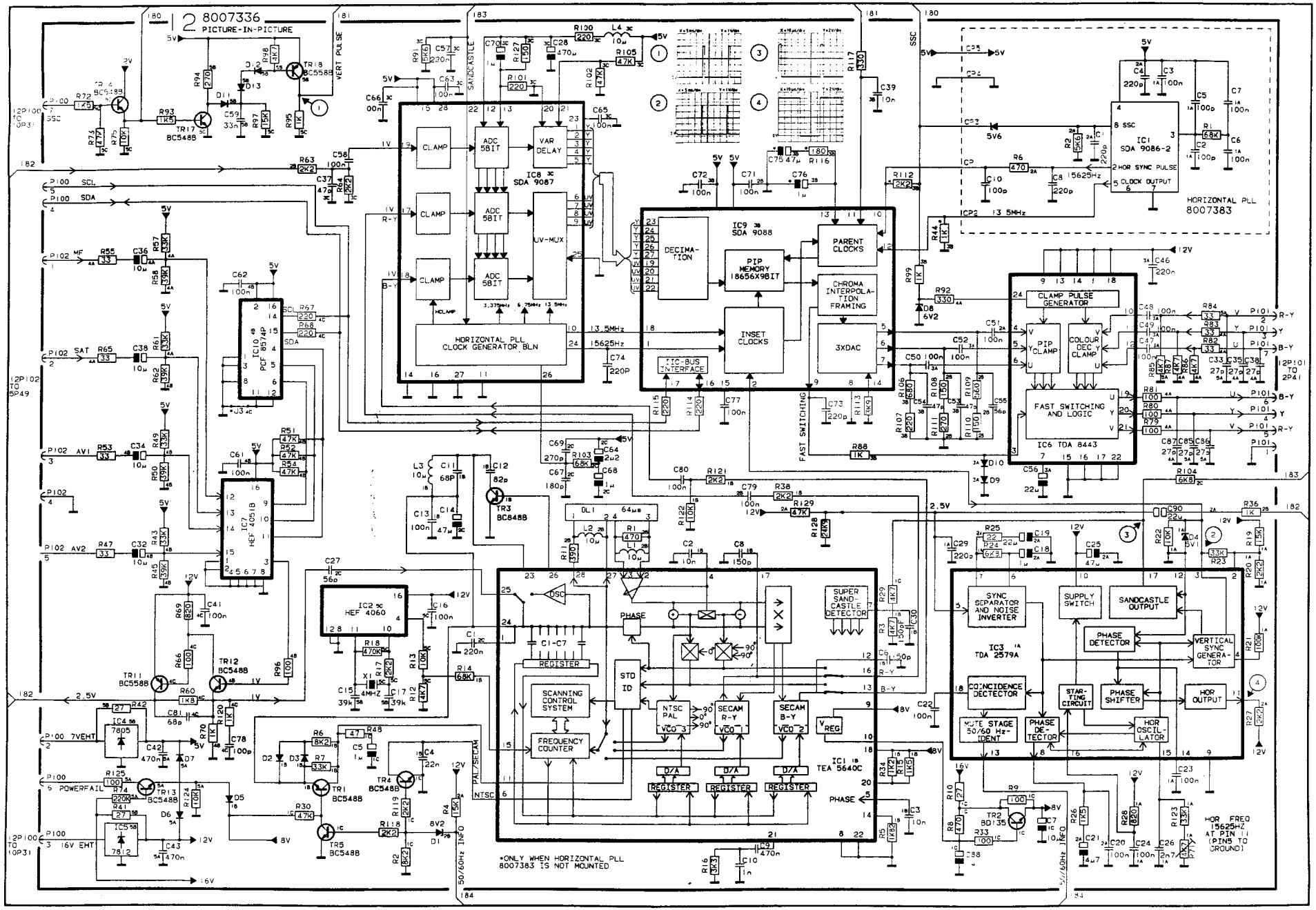
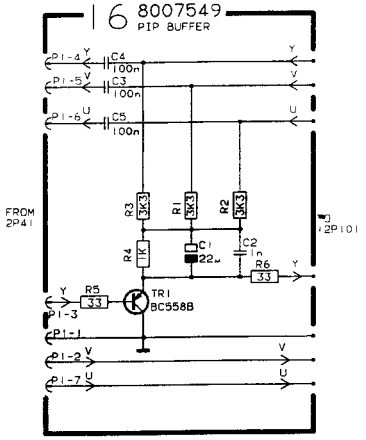


DIAGRAM PIP Buffer



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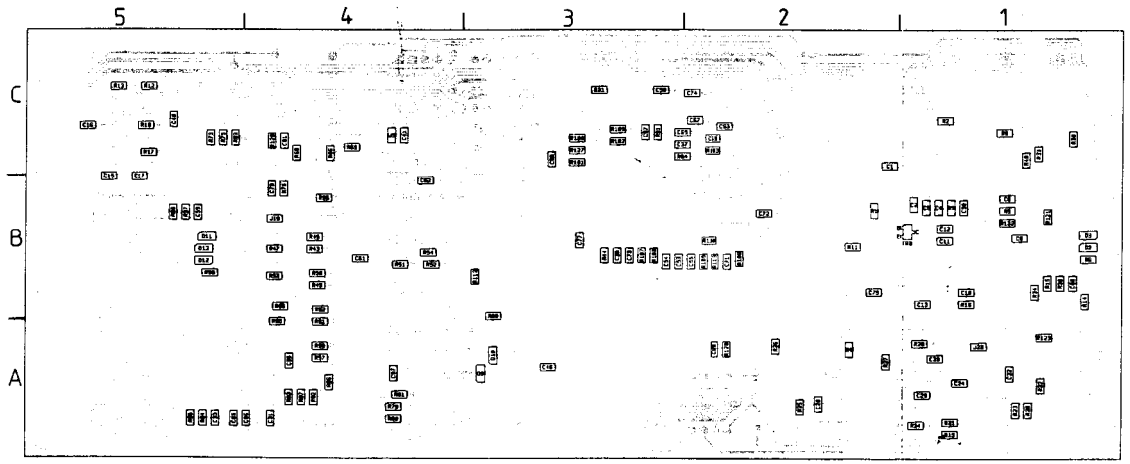
PCB 12

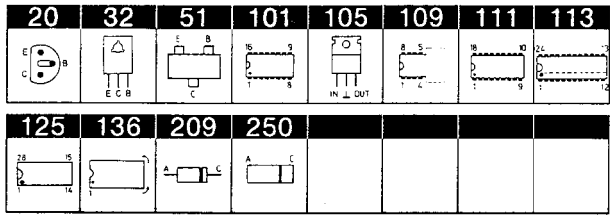


9-4

9-4

LIST OF ELECTRICAL PARTS

PCB 12, 8007336
Picture in Picture



Resistors not referred to are standard, see page 3-12
Δ indicates that static electricity may destroy the component.

IC1Δ	8341191	125	TEA5640C	IC6Δ	8341363	113	TDA8443A
IC2Δ	8341230	101	4060	IC7Δ	8341440	101	4051
IC3Δ	8341131	111	TDA2579A	IC8Δ	8341442	136	SDA9087
IC4	8340065	105	7805	IC9Δ	8341443	136	SDA9088
IC5	8340049	105	7812	IC10Δ	8341158	101	PCF8574P

TR1	8320509	20	BC548B	TR11	8320510	20	BC558B
TR2	8320317	32	BD135	TR12-	8320509	20	BC548B
TR3	8320615	51	BC848B	TR14			
TR4-	8320509	20	BC548B	TR17	8320509	20	BC548B
TR5				TR18	8320510	20	BC558B

D1	8300173	209	8,2V 5% 0,4W	D7			
D2-	8300482	250	4148	D8	8300201	209	6,2V 5% 0,4W
D3				D9-	8300482	250	LL4148
D4	8300169	209	5,1V 5% 0,5W	D13			
D5-	8300058	209	1N4148				

R10	5021120	27Ω 5% 1W	R71	5370324	4,7kΩ 20% 0,1W
R41-	5021120	27Ω 5% 1W	R128	5011598	24,9kΩ 1% 1/8W
R42					

C1	4000287	220nF -20+80% 25V	C36	4200510	10µF 20% 16V
C2-	4010157	10nF 10% 50V	C37	4000234	47pF 5% 50V
C3			C38	4200510	10µF 20% 16V
C4	4000290	22nF 10% 50V	C39	4010157	10nF 10% 50V
C5	4200512	1µF 20% 50V	C41	4010166	100nF -20+80% 50V
C6	4000229	150pF 5% 50V	C42-	4130313	470nF 20% 63V
C7	4200510	10µF 20% 16V	C43		
C8	4000229	150pF 5% 50V	C46	4000287	220nF -20+80% 25V
C9	4130313	470nF 20% 63V	C47-	4130230	100nF 20% 63V
C10	4000345	1nF 5% 50V	C52		
C11	4000280	68pF 5% 50V	C53-	4000234	47pF 5% 50V
C12	4000281	82pF 5% 50V	C54		
C13	4010166	100nF -20+80% 50V	C55	4000240	56pF 5% 50V
C14	4200516	47µF 20% 16V	C56	4200544	22µF 20% 16V
C15	4000279	39pF 5% 50V	C57	4000233	220pF 5% 50V
C16	4010166	100nF -20+80% 50V	C58	4010166	100nF -20+80% 50V
C17	4000279	39pF 5% 50V	C59	4010175	33nF 10% 50V
C18	4200512	1µF 20% 50V	C61-	4010166	100nF -20+80% 50V
C19	4200508	22µF 20% 25V	C63		
C20	4010166	100nF -20+80% 50V	C64	4200517	2,2µF 20% 50V
C21	4200515	4,7µF 20% 25V	C65-	4010166	100nF -20+80% 50V
C22-	4010166	100nF -20+80% 50V	C66		
C24			C67	4000282	180pF 5% 50V
C25	4200516	47µF 20% 16V	C68	4200512	1µF 20% 50V
C26	4100308	2,7nF 5% 63V	C69	4000283	270pF 5% 50V
C27	4000155	56pF 5% 63V	C70	4200512	1µF 20% 50V
C28	4200831	470µF 20% 10V	C71-	4010166	100nF -20+80% 50V
C29	4000233	220pF 5% 50V	C72		
C30	4000229	150pF 5% 50V	C73-	4000233	220pF 5% 50V
C31	4000278	27pF 5% 50V	C74		
C32	4200510	10µF 20% 16V	C77	4010166	100nF -20+80% 50V
C33	4000278	27pF 5% 50V	C78	4000241	100pF 5% 50V
C34	4200510	10µF 20% 16V	C79-	4010166	100nF -20+80% 50V
C35	4000278	27pF 5% 50V	C80		
C81	4000231	68pF 5% 50V	C88	4200512	1µF 20% 50V
C85-	4000278	27pF 5% 50V	C90	4200784	22µF 20% 16V
C87					

L1	8020608	Coil 10uH 5%	L3	8020830	Coil 10uH
L2	8020752	Coil 10uH	L4	8020608	Coil 10uH 5%

P100-	7220714	Plug 7pol	P102	7220712	Plug 5pol
P101					

DL1	6240012	Delay line 64µs

X1	8090000	Crystal 4MHz

8007290
Horizontal PLL

IC1	8341646	109	SDA 9086-2				

C1	4010155	220pF 10% 50V	C7			
C2	4000281	82pF 5% 50V	C8-	4010155	220pF 10% 50V
C3	4130230	100nF 20% 63V	C9			
C5	4000243	100pF 5% 50V	C10	4000204	100pF 5% 63V
C6-	4130224	100nF 10% 63V				

CP1-	7220564	Plug 1pol
CP5		

8007549
Buffer

TR1	8320510	20	BC558B				

C1	4200544	22µF 20% 16V	C3-	4130230	100nF 20% 63V
C2	4010105	1nF 10% 50V	C5			

LIST OF MECHANICAL PARTS

L/LX 4500/5500

3152722	Holder
2938276	Bushing, only LX 5500
2015108	Screw 3.5x16, only LX 4500
2015138	Screw 3.5x30, only LX 5500
6276222	Wire bundle L/LX 4500/5500
3152178	Cable holder

MX 3500/5500

3152739	Holder MX 3500/5500
6276221	Wire bundle MX 3500/5500

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